

City and County of San Francisco  
Planning Department

# **557 Fourth Street Live/Work Development**

## **DRAFT**

## **ENVIRONMENTAL IMPACT REPORT**

### **98.953E**

Draft EIR Publication Date:	May 6, 2000
Draft EIR Public Hearing Date:	June 8, 2000
Draft EIR Public Comment Period:	May 6, 2000 to June 8, 2000

DOCUMENTS DEPT.

Written comments on this document should be sent to:

**D**

Hillary Gitelman  
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DATE: May 6, 2000

TO: Distribution List for the 557 Fourth Street Live/Work Development Draft EIR

FROM: Hillary E. Gitelman, Environmental Review Officer

SUBJECT: Request for the Final Environmental Impact Report for the 557 Fourth Street Live/Work Development (Case Number 98.953E)

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This is the Draft of the Environmental Impact Report (EIR) for the 557 Fourth Street Live/Work Development. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, our office will prepare and publish a document titled "Summary of Comments and Responses" which will contain a summary of all relevant comments on this Draft EIR and our responses to those comments; it may also specify changes to this Draft EIR. Public agencies and members of the public who testify at the hearing on the Draft EIR will automatically receive a copy of the Comments and Responses document, along with notice of the date reserved for certification; others may receive such copies and notice on request or by visiting our office. This Draft EIR together with the Summary of Comments and Responses document will be considered by the City Planning Commission in an advertised public meeting and certified as a Final EIR if deemed adequate.

After certification, we will modify the Draft EIR as specified by the Comments and Responses document and print both documents in a single publication called the Final Environmental Impact Report. The Final EIR will add no new information to the combination of the two documents except to reproduce the certification resolution. It will simply provide the information in one rather than two documents. Therefore, if you receive a copy of the Comments and Responses document in addition to this copy of the Draft EIR, you will technically have a copy of the Final EIR.

We are aware that many people who receive the Draft EIR and Summary of Comments and Responses have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the Final EIR to private individuals only if they request them.

If you would like a copy of the Final EIR, therefore, please fill out and mail the postcard provided inside the back cover to the Office of Environmental Review within two weeks after certification of the EIR. Any private party not requesting a Final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the Final EIR.

Thank you for your interest in this project.



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City and County of San Francisco  
Planning Department

# **557 Fourth Street Live/Work Development**

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## **DRAFT ENVIRONMENTAL IMPACT REPORT**

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Environmental Review Officer  
San Francisco Planning Department  
1660 Mission Street  
San Francisco, CA 94103



# 557 Fourth Street Live/Work Project

## Draft Environmental Impact Report

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# I. SUMMARY

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## A. INTRODUCTION

This document is a Draft Environmental Impact Report (DEIR) prepared in accordance with the California Environmental Quality Act (CEQA) for the proposed construction of 188 live/work units in twelve four-story live/work buildings with ground-floor retail space and subterranean parking. CEQA requires that an Environmental Impact Report (EIR) be prepared for any project to be undertaken or approved by a local or State agency that may have a significant effect on the environment (California Public Resources Code, Section 21000).

An application for environmental review evaluation for the 557 Fourth Street project was filed on November 20, 1998. On the basis of an Initial Study published on September 4, 1999, the San Francisco Planning Department, Major Environmental Analysis section, determined that an EIR is required. This document, together with its appendices, constitutes a DEIR on the proposed 557 Fourth Street project. The Lead Agency responsible for preparing the EIR on this project is the San Francisco Planning Department. This EIR is intended to provide sufficient and accurate environmental documentation to allow the San Francisco Planning Commission to make an informed decision concerning the environmental effects of the proposed 557 Fourth Street new live/work project.

## B. PROJECT DESCRIPTION

The project site is located in the block bounded by Fourth, Freelon, Zoe, and Welsh Streets in the South of Market area. The approximately 70,400-square-foot site is located on a full-block parcel consisting of Lots 119 and 62 in Assessor's Block 3776. The site was previously occupied by three warehouse-type buildings that were damaged by fire in 1998 and subsequently demolished. The southeast corner of the site is currently occupied by a two-story brick building housing an auto body repair shop and a sign shop/graphic art company. The rest of the site has been cleared and graded.

The project sponsor, 557 Fourth Street LLC, proposes to demolish the remaining building on the southeastern portion of the project site, subdivide the project site into 12 equal-sized air parcels, and construct a four-story, 55-foot-tall wood frame live/work building on each air parcel. A total of 188 live/work units, occupying approximately 227,000 square feet, would be constructed along with approximately 13,000 square feet of retail space for four to six commercial tenants, which would be provided on the ground floor of the two buildings with frontage on Fourth Street. A three-level underground parking garage would occupy the entire site and would provide 188 private parking spaces (one per living unit), 292 public parking spaces, and 2 off-street loading spaces. The garage would be accessible on Welsh and Freelon Streets in the middle of the project block, both would operate two-ways.



Following completion and certification of the Final EIR, the project would require conditional use authorization by the Planning Commission under procedures set forth in *Planning Code* Section 303 and Resolution No. 14844, for a community parking garage in a proposed South End Service District.

Project construction would take approximately 26 months, including demolition of the existing two-story building on the southeastern corner of the site. The project construction cost is estimated at \$20 million.

## C. MAIN ENVIRONMENTAL EFFECTS

This environmental impact report, for the 557 Fourth Street project, focuses on the issues of transportation, hazardous materials, and growth inducement. The Initial Study (see Appendix A) prepared for the project determined that all other potential environmental effects were less than significant or would be mitigated to a less-than-significant level with implementation of recommended mitigation measures. The issue of land use is also discussed in this EIR for informational purposes.

### Land Use

The proposed project would increase the intensity of land use on the project site through development of a live/work/retail project on a site that is currently predominantly vacant. However, the project would not substantially alter or be inconsistent with the general land use pattern of the neighborhood, would not substantially divide the established physical arrangement of the community, and would be consistent with both the current zoning under the *Planning Code* (SLI-Service/Light Industry) and the interim control Mixed Use Housing District. The project would displace two existing commercial businesses from the site; however, the seller of lot 62 is the owner of the auto repair business, which would likely relocate within San Francisco, and its displacement would not be a significant adverse effect of the project. The removal of about 70,400 square feet of land currently zoned for service and industrial uses would not be significant because it would constitute a very small portion of the City's industrially zoned land. The loss would be balanced by the project's contribution to needed housing stock. The project would have no significant land use impacts.

### Transportation

The project would generate about 5,629 new weekday person trips. During the weekday PM peak hour (4:30 to 5:30 p.m.), the project would generate about 948 new person trips. Of the 948 new person trips, about 163 trips would be made by transit, 565 would be made by automobile, and 220 would be made by walking, bicycles, motorcycles, taxi or other modes.

Seven study intersections were analyzed in the project vicinity, including Bryant Street/Third Street, Bryant Street/Fourth Street, Bryant Street/Fifth Street, Bryant Street/Zoe Street, Brannan Street/Third Street, Brannan Street/Fourth Street, and Fourth Street/Freelon Street. Five intersections are traffic signal-controlled and the two intersections of Bryant Street/Zoe Street and Fourth Street/Freelon Street are stop-sign controlled. Existing traffic conditions during the weekday PM peak period (4:00 to 6:00 p.m.) were evaluated. In general, the study intersections operate at acceptable levels of service, with average delays of less than 19 seconds per vehicle. The exception is the intersection of Bryant and Fifth

Streets, which is LOS F due to the high demand to the I-80 eastbound on-ramp. All other intersections currently operate at LOS C or better. In San Francisco, intersections operating at LOS A, B, C or D are considered to be acceptable, and LOS E and F are unacceptable. Intersections that degrade to LOS E or worse from LOS D or better would be considered to experience significant impacts on traffic circulation and operations.

The addition of project-generated traffic would not result in any change in the LOS at the study intersections, with the exceptions of the signalized intersection of Brannan and Third Streets where the LOS would degrade from B to C and the average delay per vehicle would increase from 15.7 seconds to 23.3 seconds; and the unsignalized intersection of Fourth/Freelon Streets where the LOS would degrade from C to D and the average delay per vehicle would increase from 1.5 seconds to 4.0 seconds. Neither situation would be a significant impact.

Over time, traffic volumes in the project vicinity are expected to increase. These "cumulative" increases will result in increased congestion on freeways, major arterials, and the local streets which access these facilities. All of the intersections would be appreciably degraded by 2015, except Bryant/Zoe Streets and Brannan/Fourth Streets. The project's contribution to cumulative conditions at these intersections would not be considerable, and conditions would degrade with or without the proposed project.

Welsh, Freelon and Zoe Streets presently operate as two-way streets, while technically these streets are only wide enough for one-way operation. The general congestion and traffic conflicts on the site's surrounding streets would be considered a significant traffic impact, and operation of the project would increase the existing traffic flow on these streets. To mitigate these impacts, and in order to provide less congested, safer and more efficient traffic flow in the area, one-way street patterns would be required as mitigation for these streets: westbound for Welsh Street, eastbound for Freelon Street and northbound for Zoe Street.

The project site is well served by MUNI, with 12 MUNI bus lines passing within two blocks of the site, with PM peak headways ranging from 5 to 20 minutes. The project would generate 163 new transit trips during the weekday PM peak hour, including transfer to the regional transit system. There would be sufficient capacity on all transit lines to accommodate these additional project-generated transit trips. The additional vehicle trips to and from the proposed project garage would not substantially affect the operating conditions of the adjacent MUNI bus lines or the existing bus stops. Adequate passenger and freight loading/unloading facilities would be provided to preclude double parking, which could potentially affect transit service. The transit impacts generated by the project would therefore not be significant.

The proposed project would generate an additional 220 walking and "other" (bicycle, motorcycle, taxi, other modes) trips to and from the site. The additional 163 transit trips and the 360 vehicle trips generated by the community parking garage would also create associated pedestrian trips (vehicles would park in the garage and then walk to their destinations). These additional trips would not substantially affect the pedestrian operating conditions on the sidewalks or crosswalks in the vicinity of the project, and operation of all crosswalks under weekday PM peak-hour conditions would remain at acceptable levels.



The *Planning Code* requires 211 self-parked spaces for the proposed project. The project would provide up to 480 spaces in a three-level underground garage, with access from both Freelon and Welsh Streets. The project peak parking demand would be about 334 parking spaces during the weekday peak parking demand period, which would be accommodated on the project site.

The *Planning Code* requires that a project of this size provide three off-street loading spaces: two for the live/work component and one for the retail space. The project would provide two Code-complying standard truck loading spaces at grade on Welsh Street and Freelon Street, respectively, and two service van spaces within the garage. The two loading spaces and two van spaces would be sufficient to satisfy the projected demand of 0.46 spaces during the average loading hour and 0.58 spaces during the peak loading hour, and meet the *Planning Code* requirements.

Construction activities associated with the project building are expected to occur over a 26-month period. During the construction period, there would be a flow of trucks in and out of the construction site. Traffic slowdown and interference would result from truck movements to and from the site during construction. Most staging of construction equipment and materials would primarily occur on the project site, though additional offsite staging areas may also be utilized. Periodic closures of the traffic lanes and sidewalks adjacent to the site may be required, which would be coordinated with the City in order to minimize the impacts on local traffic. Construction workers would create additional demand for parking in the vicinity of the project site during the construction period. The additional demand would be temporary and could be accommodated in available on- and off-street parking spaces in the area during the excavation and foundation phase, and in the on site parking garage after its completion.

## Hazardous Materials

Lead concentrations exceeding the hazardous waste threshold were detected in the subsurface soil at the site. The presence of lead contamination could present a health risk to construction workers if not properly handled during excavation. In addition, lead-impacted soil that is excavated from the site could present substantial human health risks if improperly disposed or reused in areas that may result in human contact. Mitigation would consist of the removal of hazardous substances and their disposal at an approved disposal site, or other appropriate mitigation. A Site Mitigation Plan (SMP) has been submitted to the appropriate city, or federal agencies and would be implemented before a building permit is issued. Compliance with an approved SMP and existing regulations would reduce any potential impacts related to contaminated soil or groundwater to a less-than-significant level.

Asbestos-containing building materials may exist in the building on the southeast corner of the site. All asbestos identified must be removed and properly disposed of prior to demolition of the building. Regulations and procedures already established as part of the permit review process would ensure that any potential impacts due to asbestos would be reduced to a less-than-significant impact.

Demolition of the existing building could create exposure to paint materials containing lead. These materials could expose workers and persons in close proximity, including off-site locations. Compliance

with procedures required as part of the *San Francisco Building Code* would ensure that potential impacts due to lead-based paint would be reduced to a less-than-significant level.

Improper handling or disposal of discarded equipment (i.e., fluorescent light fixtures) in the existing building could result in human or environmental exposure to liquid material containing PCBs. Adherence to standard precautionary measures would reduce the potential hazards associated with PCB exposure to a less-than-significant level.

Due to the presence of contaminated soil, there may be localized areas of groundwater contamination on the site that would have to be removed (dewatered) during excavation of the project. Adherence to the San Francisco Industrial Waste Ordinance would minimize public health exposure to hazardous materials present in the dewatering discharge and reduce potential impacts to a less-than-significant level.

Based on the above, the proposed project would not result in significant impacts related to hazardous materials located on the project site.

## D. MITIGATION MEASURES

### Construction Air Quality

- The project sponsor would require the contractor(s) to sprinkle demolition sites with water during demolition, excavation, and construction activity twice daily; sprinkle unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover debris, soil, sand, or other such material being hauled on trucks; and sweep surrounding streets during demolition and construction at least once per day to reduce particulate emissions. Ordinance No. 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor would require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose.
- The project sponsor shall require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as prohibiting idling motors when equipment is not in use or when trucks are waiting in queues, and implementing specific maintenance programs to reduce emissions for equipment that would be in frequent use for much of the construction period.

### Transportation

#### Measures That Could be Implemented by Other Agencies

- The City and County of San Francisco shall establish a one-way traffic pattern around the site to westbound for Welsh Street, eastbound for Freelon Street, and northbound for Zoe Street.

### Hazards

- The project sponsor's Site Mitigation Plan (SMP) shall be submitted to the Department of Public Health for review and approval prior to any site ground disturbance and approval of any site permit.
- The project sponsor shall ensure that building surveys for and removal of asbestos, PCB-containing equipment (including elevator equipment), hydraulic oils, fluorescent lights, and lead-based paint are performed prior to the start of demolition. Any hazardous materials so discovered would be abated in accordance with federal, state, and local laws and regulations.



## Cultural Resources

- Given the location and depth of the excavation proposed, and the possibility that archaeological resources could be encountered on the project site, the sponsor has agreed to retain the services of an archaeologist. The project sponsor would retain the services of a qualified archaeological consultant with documented expertise and experience in the investigation of both prehistoric/protohistoric and historic period sites in an urban setting. The archaeologist would design and carry out a pre-excavation testing program to better determine the probability of finding cultural and historical remains. The testing program would use a series of mechanical, exploratory trenches at selected locations within the project site. Any cultural materials recovered from the site would be subjected to appropriate laboratory analysis and archaeological interpretation.

If, after testing, the archaeologist determines that no further investigations or precautions are necessary to safeguard potentially significant archaeological resources, the archaeologist would submit a written report to the Environmental Review Officer (ERO), with a copy to the project sponsor. If the archaeologist determines that further investigations or precautions are necessary, he/she would consult with the ERO and they would jointly determine what additional procedures are necessary to minimize potential effects on archaeological resources.

These additional mitigation measures would be implemented by the project sponsor and might include a program of on-site monitoring of all site excavation, during which the archaeologist would record observations in a permanent log. The monitoring program, whether or not there are finds of significance, would result in a written report to be submitted first and directly to the ERO, with a copy to the project sponsor. During the monitoring program, the project sponsor would designate one individual onsite as his/her representative. This representative would have the authority to suspend work at the site to give the archaeologist time to investigate and evaluate archaeological resources should they be encountered.

Should evidence of cultural resources of potential significance be found during the monitoring program, the archaeologist would immediately notify the ERO, and the project sponsor would halt any activities that the archaeologist and the ERO jointly determine could damage such cultural resources. Ground disturbance activities which might damage cultural resources would be suspended for a total maximum of 4 weeks over the course of construction.

After notifying the ERO, the archaeologist would prepare a written report to be submitted first and directly to the ERO, with a copy to the project sponsor, which would contain an assessment of the potential significance of the find and recommendations for what measures should be implemented to minimize potential effects on archaeological resources. Based on this report, the ERO would recommend specific mitigation measures to be implemented by the project sponsor. These additional mitigation measures might include a site security program, additional on-site investigations by the archaeologist, and/or documentation, preservation, and recovery of the cultural material.

Finally, the archaeologist would prepare a report documenting the cultural resources that were discovered, an evaluation as to their significance, and a description as to how any archaeological testing, exploration, and/or recovery program was conducted.

Copies of all draft reports prepared according to this mitigation measure would be sent first and directly to the ERO for review. Following approval by the ERO, copies of the final report would be sent to the President of the Landmarks Preservation Advisory Board and the California Archaeological Site Survey Northwest Information Center.



## **E. ALTERNATIVES TO THE PROPOSED PROJECT**

### **Alternative A: No Project**

This alternative would entail no change to the site, which would remain in its existing condition. The majority of the site would remain vacant and the existing two-story brick building on the southeast corner of the site would not be demolished and would continue to be occupied by the existing commercial businesses. There would be no increase in vehicle travel or transit use under this alternative, as would occur with implementation of the proposed project. None of the less-than-significant traffic impacts identified for the proposed project, including effects on intersection conditions, transit use, and parking, would occur under this alternative. Other less-than-significant effects identified in the Initial Study, such as emissions of air pollutants during construction and operation of the project, generation of noise during construction, potential discovery of subsurface cultural resources during excavation, and displacement of the existing commercial uses in the extant two-story building, among other impacts, would not occur with this alternative.

### **Alternative B: Reduced Development**

This alternative would be similar to the proposed project in terms of location, number of buildings, general configuration of project components, and general appearance of the buildings. Under the Reduced Development Alternative the 12 buildings would be three stories instead of four and there would be no retail space. A total of 90 live/work units would be constructed, occupying approximately 109,000 square feet of floor area. There would be no underground parking garage and no public parking; rather, a ground-level parking garage would provide 90 private parking spaces and one off-street loading space. No retail space and no public parking would be developed under the Reduced Development Alternative. All *Planning Code* requirements would be met by this alternative, as with the project.

The Reduced Development Alternative would have less-than-significant impacts that would be similar to those of the proposed project, though reduced in scope. The elimination of retail space and the reduction in square footage devoted to live/work use would result in fewer vehicle and transit trips generated by this alternative. The project occupants would generate approximately 279 daily vehicle trips and 48 PM peak hour vehicle trips compared to 1,280 daily vehicle trips and 296 PM peak hour vehicle trips with the proposed project. Vehicle delays at the six study intersections would be reduced compared with the project.

This alternative would generate marginally smaller shadows than the proposed project, due to a reduction in height from 55 feet to approximately 40 to 45 feet. However, shadow and other visual effects would be less than significant under both the proposed project and this alternative. The potential for encountering buried cultural resources would be lowered under this alternative, due to reduced excavation requirements. Other effects described in the Initial Study for the proposed project, such as construction noise and air emissions, would be similar to those of the proposed project but somewhat reduced because of the project's reduced size and consequently reduced construction requirements.

All impacts would be less than significant with implementation of the mitigation measures that are identified for the proposed project.

## **Alternative C: Light Industrial Alternative**

Under this alternative, the proposed project site would be developed with a single two-to-three-story building that would contain approximately 140,000 square feet of light industrial/business services-multimedia space and a parking garage. An underground garage would provide a single level of private parking with approximately 130 parking spaces. As with the proposed project, the existing building on the southeast corner of the site would be demolished. All *Planning Code* requirements would be met by this alternative.

This alternative would have fewer traffic impacts than the proposed project due to decreased traffic trip generation. The light industrial/business service use would generate about 747 daily vehicle trips, and about 68 PM peak hour vehicle trips compared to 1,280 daily vehicle trips and 296 PM peak hour trips with the proposed project. Levels of service at the Bryant Street/Fifth Street intersection would continue to be unacceptable.

This alternative would have less massing than the proposed project, and would cast a smaller shadow. Other effects described in the Initial Study for the proposed project, including construction noise and air emissions during construction and operations, would also occur under this alternative, though the duration of construction impacts would be reduced. Reduced excavation would lower the potential for encountering buried cultural resources. All impacts of the alternative would be less than significant with implementation of the mitigation included in the proposed project.

## **F. AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED**

Consistent with CEQA Guidelines Section 15004, this EIR has been prepared early in the planning process, when only preliminary or schematic project design information is available. As with all projects, the project design will continue to evolve as the sponsor makes refinements and receives input from the Planning Department and Planning Commission. The project is analyzed in this EIR at a level of analysis sufficiently broad to permit these refinements without necessarily triggering new environmental review, yet in sufficient detail to identify specific potential physical effects on the environment. Subsequent changes in the project will be evaluated to ensure that they would not cause new or substantially more severe environmental impacts.

There are no apparent areas of controversial environmental issues surrounding the proposed project. South of Market and other City neighborhood organizations, however, have raised concerns that constructing live/work projects in commercial or industrial zoning districts results in displacement of commercial or industrial uses by residential uses as a result of direct conversion of existing land uses, and movement of commercial and industrial businesses out of these areas would occur as a result of



rising industrial land values and complaints from new residents about nuisances (e.g., noise, odors, traffic, etc.). Moreover, the requirements for live/work in terms of open space, rear yard and affordable housing are different than for residential use. The Planning Commission (or Board of Appeals on appeal) will decide whether to approve or disapprove the proposed project after review and certification of the EIR. In selecting or rejecting project alternatives, decision makers may also use other information in the public record.

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## II. PROJECT DESCRIPTION

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### A. PROJECT SPONSOR'S OBJECTIVES

The project sponsor, 557 Fourth Street LLC, seeks with the proposed project to achieve the following objectives:

- To develop a high-quality live/work and retail complex that will respond to growing demand for live/work accommodation in the City of San Francisco.
- To create a project that will visually enhance and integrate well with the existing surrounding neighborhood.
- To provide a parking facility to replace parking spaces lost in the area due to development and to meet the increased parking demand in the area.
- To redevelop a currently under-utilized site within a robust mixed-use neighborhood.
- To complete the project on schedule and within budget.
- To develop a project with minimal environmental disruption.

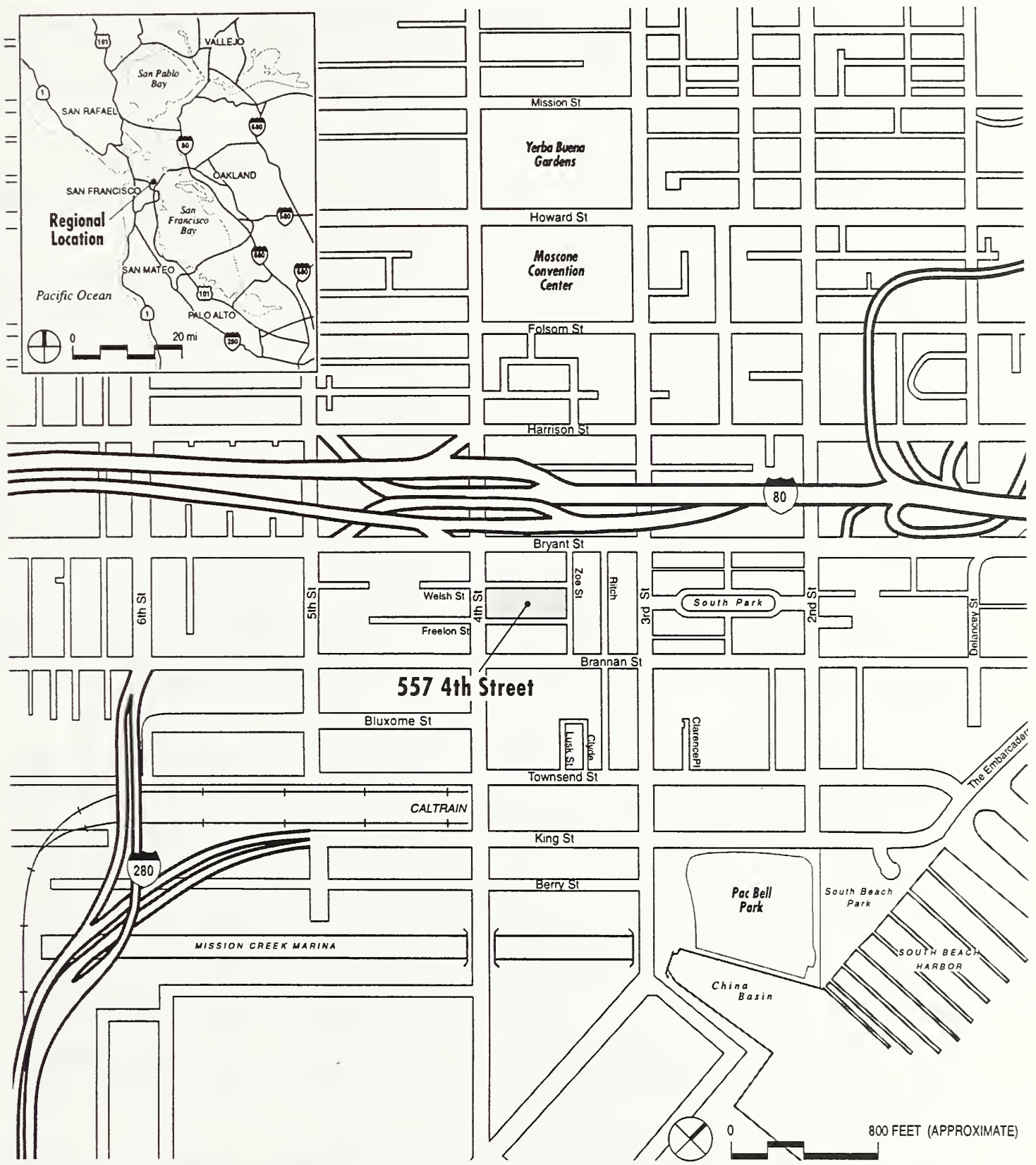
### B. SITE LOCATION AND PROJECT CHARACTERISTICS

The project site is located in the block bounded by Fourth, Freelon, Zoe, and Welsh Streets in the South of Market area (Figure 1, page 10).<sup>1</sup> The rectangular site is located on a full-block parcel (one-third of a standard South of Market block) consisting of Lots 119 and 62 in Assessor's Block 3776. The approximately 70,400-square-foot site was previously occupied by two unreinforced masonry warehouse-type buildings and a two-story wood frame structure, which were damaged by fire in October 1998. The three damaged buildings were demolished pursuant to an emergency order issued by the Department of Building Inspection and the site is currently vacant and graded except for a two-story, approximately 13,000-square-foot structure on the southeast corner of the site, which houses an auto body repair shop and a sign shop/graphic art company.

The project site is located in the South of Market District within a SLI (Service/Light Industrial) Zoning District and is in a 50-X Height and Bulk District. Live/work development and retail uses are principal permitted uses under the City *Planning Code* in the SLI zoning district. On August 5, 1999, the Planning Commission adopted Resolution No. 14861 imposing interim controls in the industrial areas of the City. Under the interim controls, the project site is located in the mixed-use housing district, which requires

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<sup>1</sup> For descriptive purposes, Fourth and Zoe Streets are considered to run north-south and Welsh and Freelon Streets are considered to run east-west.



PROJECT LOCATION FIGURE 1



conditional use approval for any live/work or residential development, except for "pipeline" projects with an application filed before April 22, 1999. The proposed project's environmental review application was filed on November 20, 1998, therefore no conditional use approval is required for the live/work component of the project.

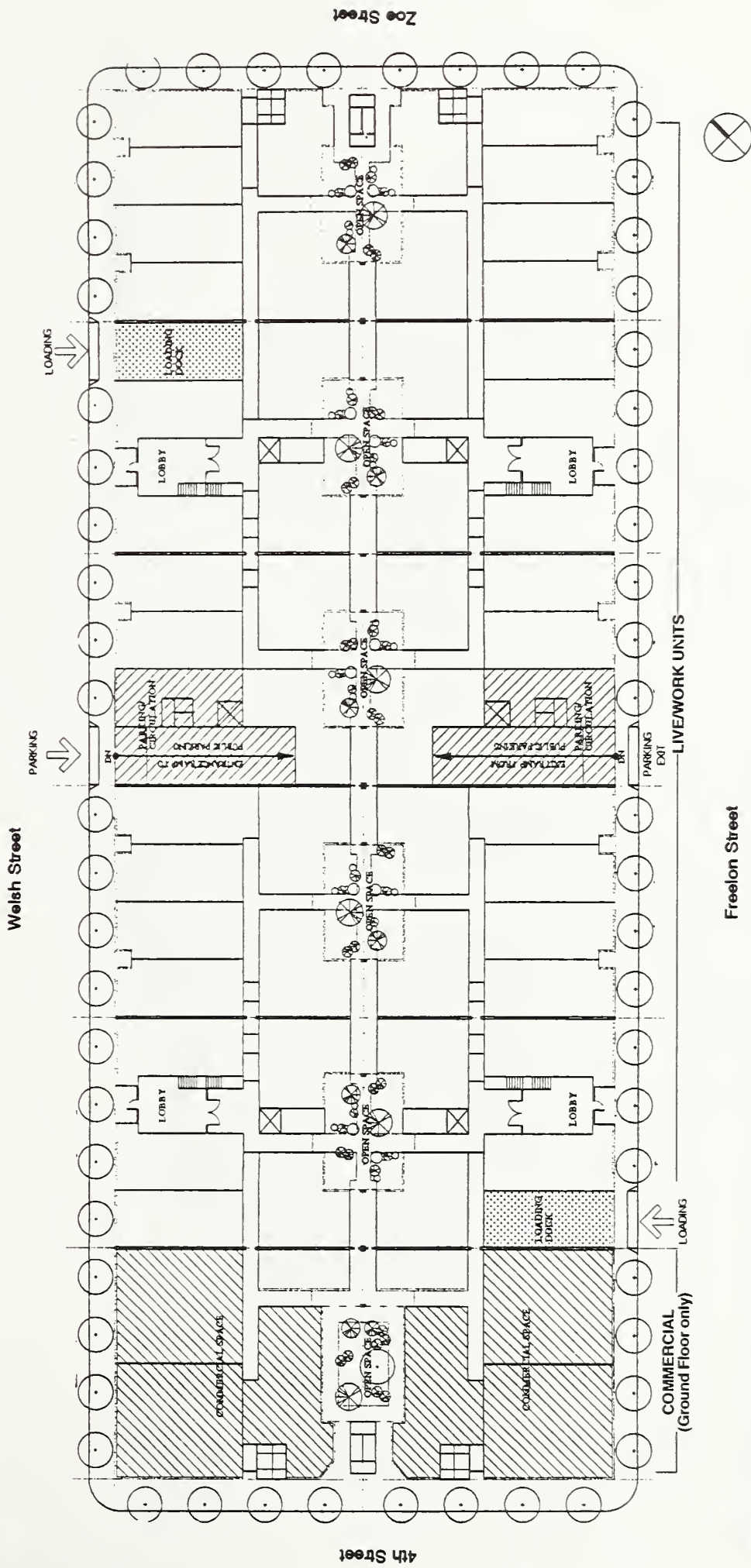
The project calls for the demolition of the remaining building on the southeastern portion of the project site, the subdivision of the project site into 12 equal-sized air parcels (i.e., above grade), and construction of a four-story, 55-foot-tall wood frame live/work building on each air parcel.

A total of 188 live/work units would be constructed and approximately 13,000 square feet of retail space for four to six commercial tenants would be provided on the ground floor of the two buildings with frontages on Fourth, Freelon and Welsh Streets (see Figures 2 through 7, pages 12 to 17). The 12 air parcels would be above a three-level underground parking garage that would occupy the entire site and would provide 480 independently accessible parking spaces, 292 of which would be available for public parking. Two off-street loading spaces would be provided on the ground level, adjacent to the commercial space on Freelon Street, and on Welsh Street about 74 feet west of Zoe Street (see Figure 2), and two van loading spaces would be provided on the first level of the parking garage. The entrance to the garage would be on Welsh Street in the middle of the project block, and egress would be mid-block onto Freelon Street.

The project would provide a total of approximately 265,000 square feet of floor area, including approximately 227,000 square feet of live/work space, about 13,000 square feet of retail space, and about 25,000 square feet of circulation, mechanical, and storage space plus 204,000 square feet of below-grade parking.

The project buildings would be interconnected in linear groups of three, with each central building containing a common lobby and elevator. Two of these central buildings would also contain a ground-level loading dock (one on Welsh Street and one on Freelon Street). Pedestrian access to two of the building groups would be on Welsh Street, with entrances to the other two groups located on Freelon Street. The two buildings located at the Fourth Street end of the block would have the ground floor devoted to retail/commercial use with frontages on Freelon, Fourth, and Welsh Streets. The upper three floors of these buildings would each be occupied by 18 live/work units, all of which would include a mezzanine level. The remaining ten project buildings would contain four floors of live/work units with mezzanines, including the units on the ground floor. The live/work units would range in size from approximately 985 square feet to about 2,400 square feet. The access ramps to the underground parking garage, as well as ground-floor lobbies for the garages would be located mid-block on Welsh and Freelon Streets, respectively.

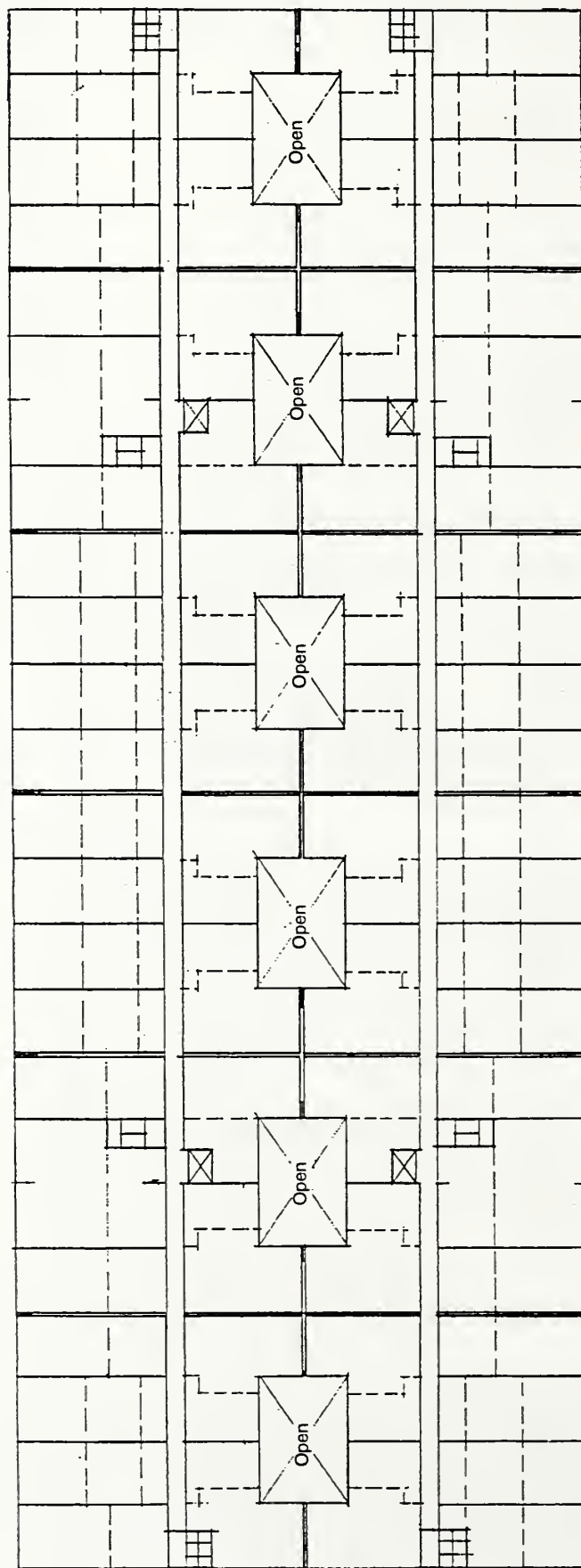
The 12 buildings would be articulated with bay windows of varying heights and proportions, and the façade would be divided into distinctive segments to reduce its scale and massing. The exterior finish of all buildings would be cement plaster. Street trees would be planted approximately every 20 feet along all four project street frontages. Six internal courtyards would be located along the length of the project block, separating each pair of back-to-back buildings.



Source: Sternberg Benjamin Architects

GROUND FLOOR PLAN FIGURE 2

Welsh Street



Zoe Street

4th Street

Freelon Street  
LIVE/WORK UNITS



Source: Sternberg Benjamin Architects

SECOND FLOOR PLAN FIGURE 3





Source: Sternberg Benjamin Architects

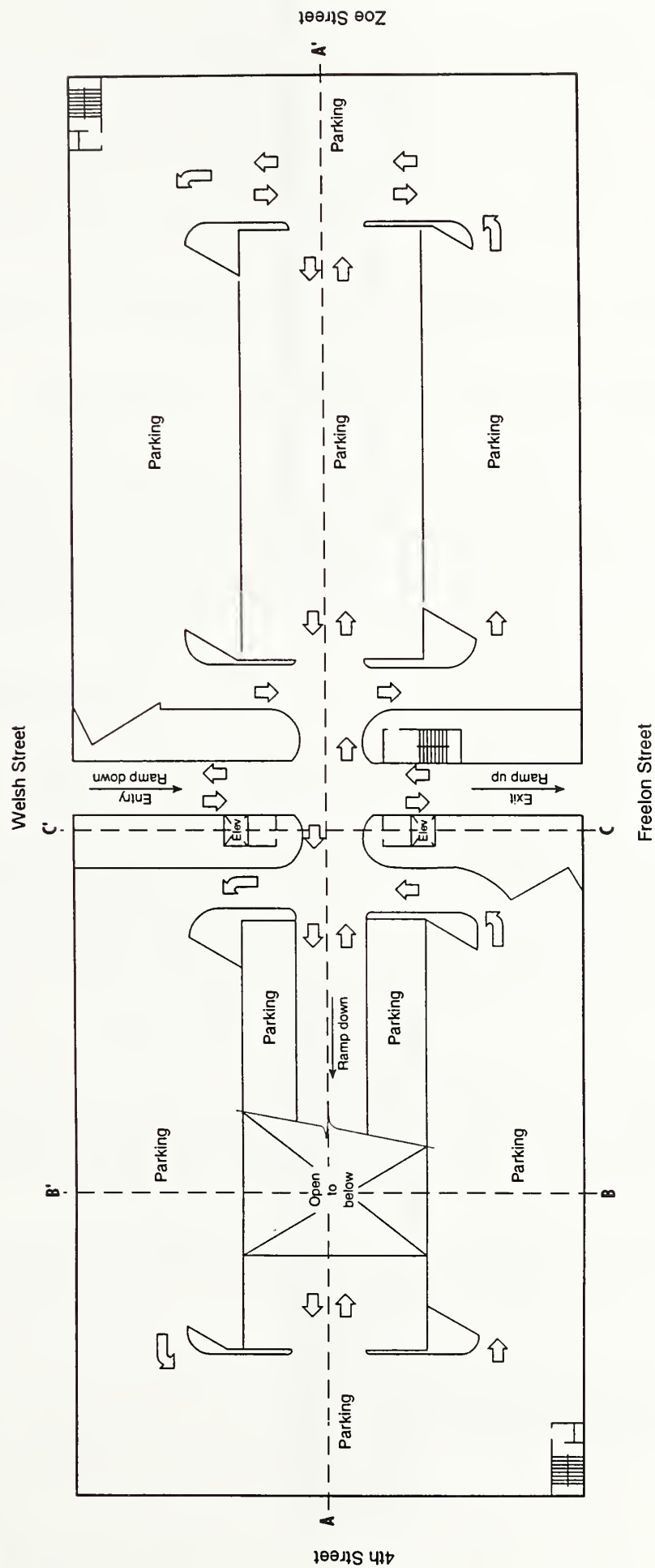
**FOURTH STREET PERSPECTIVE    FIGURE 4**



Source: Sternberg Benjamin Architects

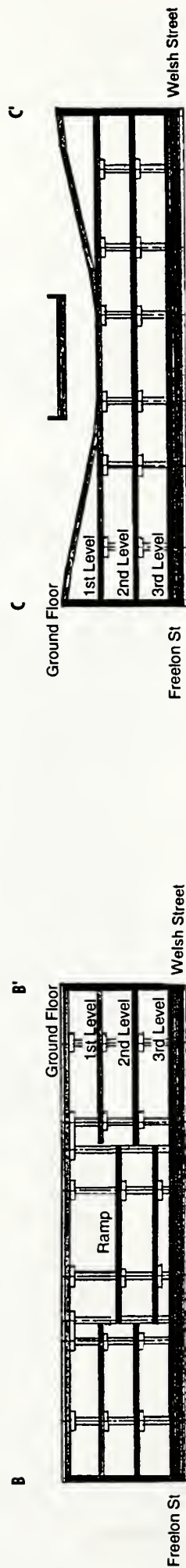
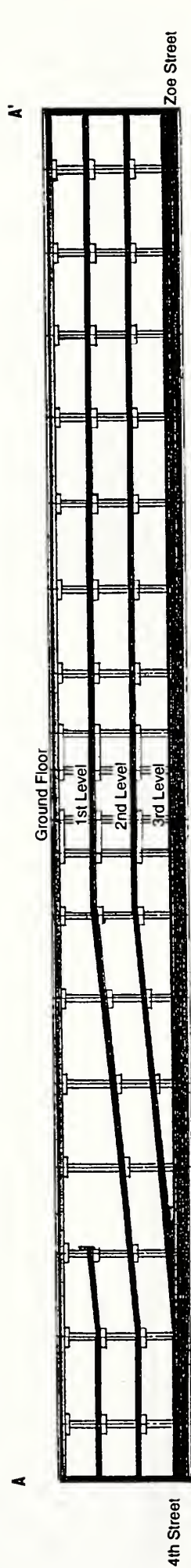
**FREELON STREET PERSPECTIVE    FIGURE 5**





Source: Watry Design Group

**GARAGE FLOOR PLAN—FIRST LEVEL      FIGURE 6**



Ground-floor passages would interconnect the courtyards, permitting internal passage through the block from Fourth Street to Zoe Street. The underground parking garage would span the entire project block, with a single entrance on Welsh Street and a single exit onto Freelon Street. Elevators to the garage would be located adjacent to the two garage lobbies, with stairway access to the garage provided at the corners of Freelon/Fourth Streets and Welsh/Zoe Streets, as well as at the Freelon Street garage lobby. The layout and circulation of the parking garage are shown on Figures 6 and 7, pages 16 and 17.

Project construction would take approximately 26 months. The project construction cost is estimated at \$20 million. The project architect is Sternberg/Benjamin Architects.

## C. PROJECT APPROVAL REQUIREMENTS

This EIR will undergo a public comment period as noted on the cover, including a public hearing before the Planning Commission on the Draft EIR. Following the public comment period, responses to written and oral comments will be prepared and published in a Draft Summary of Comments and Responses, presented to the Planning Commission for certification as to accuracy, objectivity, and completeness. No approvals or permits may be issued before the Final EIR is certified.

### Approvals

The project would require Conditional Use authorization as a community parking garage pursuant to Section 303 of the *Planning Code* because it is subject to interim controls imposed by Commission Resolution No. 14844. The project site would be located in a proposed South End Service District where community parking would be permitted only as a conditional use. When a project site is subject to both the current *Planning Code* provisions and interim control provisions, the project must comply with the more restrictive provisions of the current *Planning Code* and the Interim controls. If a project meets current controls but does not meet the proposed controls, it would be subject to automatic Discretionary Review by the Planning Commission.

If the project were to receive conditional use authorization from the Planning Commission, the project sponsor must obtain demolition, new building construction and related permits from the Department of Building Inspection. No building permit applications have been filed to date.

The conversion of Welsh, Freelon and Zoe to one-way streets, and the change of on-street parking near the project on Welsh Street from the north side to the south side, would require approval by the Board of Supervisors.

The Department of Parking and Traffic would need to approve the addition of red zone on the curb on Welsh (west of the proposed loading dock) and Freelon (east of the proposed loading dock) Streets to allow for safe truck maneuvering.



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## III. ENVIRONMENTAL SETTING AND IMPACTS

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### A. LAND USE, ZONING, AND GENERAL PLAN

#### Land Use

The Initial Study concluded that the project would not have adverse land use or zoning impacts. The proposed project would conform with the SLI (Service/Light Industrial) District uses. A discussion of land use, zoning, and the General Plan is presented here for the readers' information.

#### SETTING

The approximately 70,400-square-foot project site occupies all of the block bounded by Fourth, Welsh, Zoe, and Freelon Streets (Lots 119 and 62, Assessor's Block 3776) (Figures 8, 9, 10 and 11, pages 20 to 23). The square parcel (Lot 62) at the southeast corner of the project site is currently developed with a two-story brick building occupied by an auto body repair shop and a graphic arts/sign company. The remainder of the project site is vacant. It was previously occupied by three long warehouse-type structures that were severely damaged by a fire in September 1998 and subsequently demolished under an emergency order issued by the Department of Building Inspection. The debris and building pads were removed and the site was graded.

The project is within the SLI Zoning District. The *San Francisco Planning Code* states that the SLI District "is designed to protect and facilitate the expansion of existing general commercial, manufacturing, home and business service, live/work use, arts uses, light industrial activities and small design professional office firms" (Section 817). As a live/work building with retail space, the proposed project is a principal permitted use in the SLI District, and, therefore, no zoning reclassification would be required.

The project site is in a 50-X Height and Bulk District, which permits construction of live/work buildings up to 55 feet in height. Section 260(b)(2)(O) of the *Planning Code* provides an additional 5-foot height allowance for buildings located within a South of Market zoning district where the uppermost floor of the building is to be occupied solely by live/work units. The height of the proposed project buildings would be 55 feet, which would comply with zoning requirements pertaining to height. The proposed project would conform to the *Planning Code*. No exceptions would be sought.



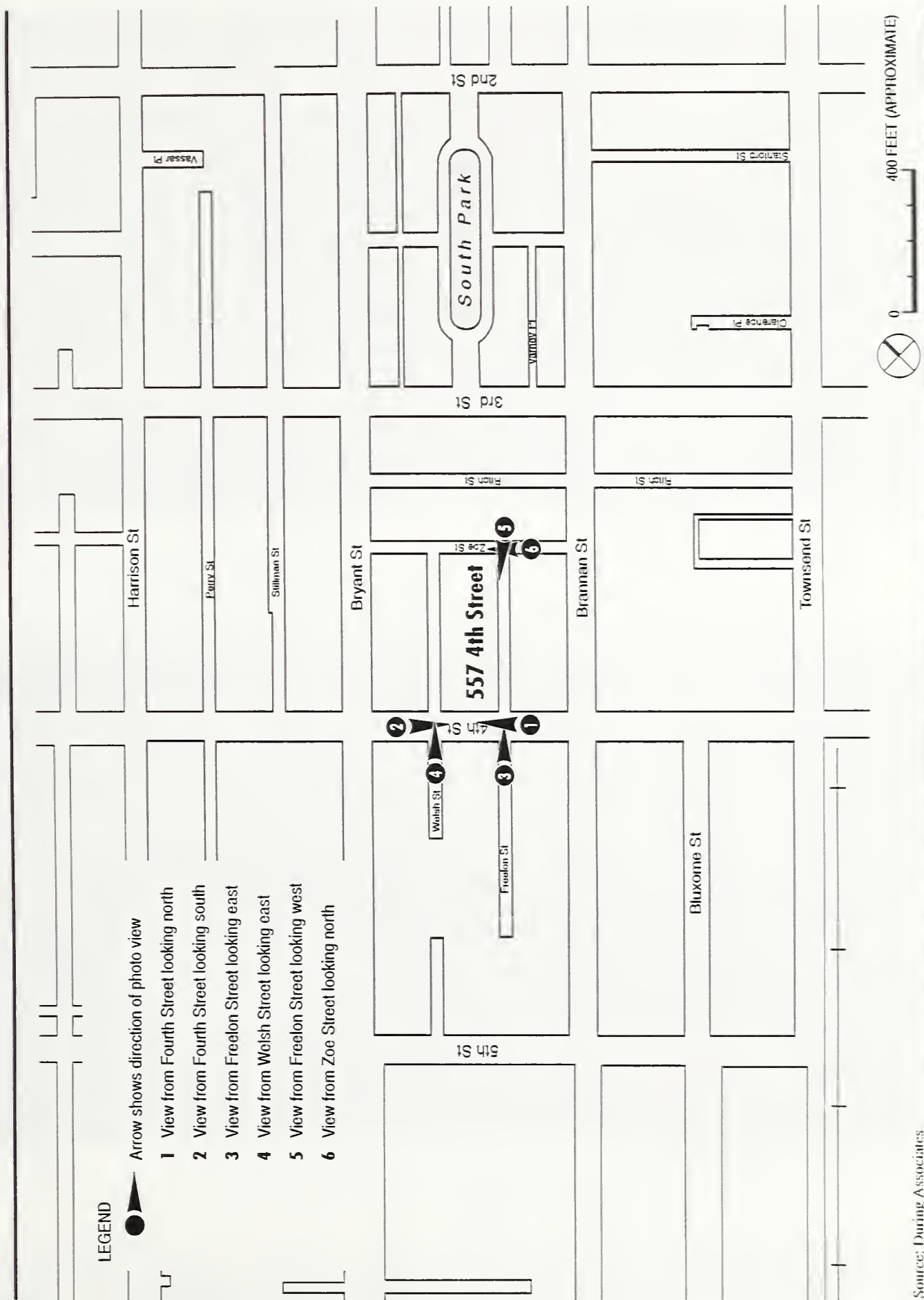
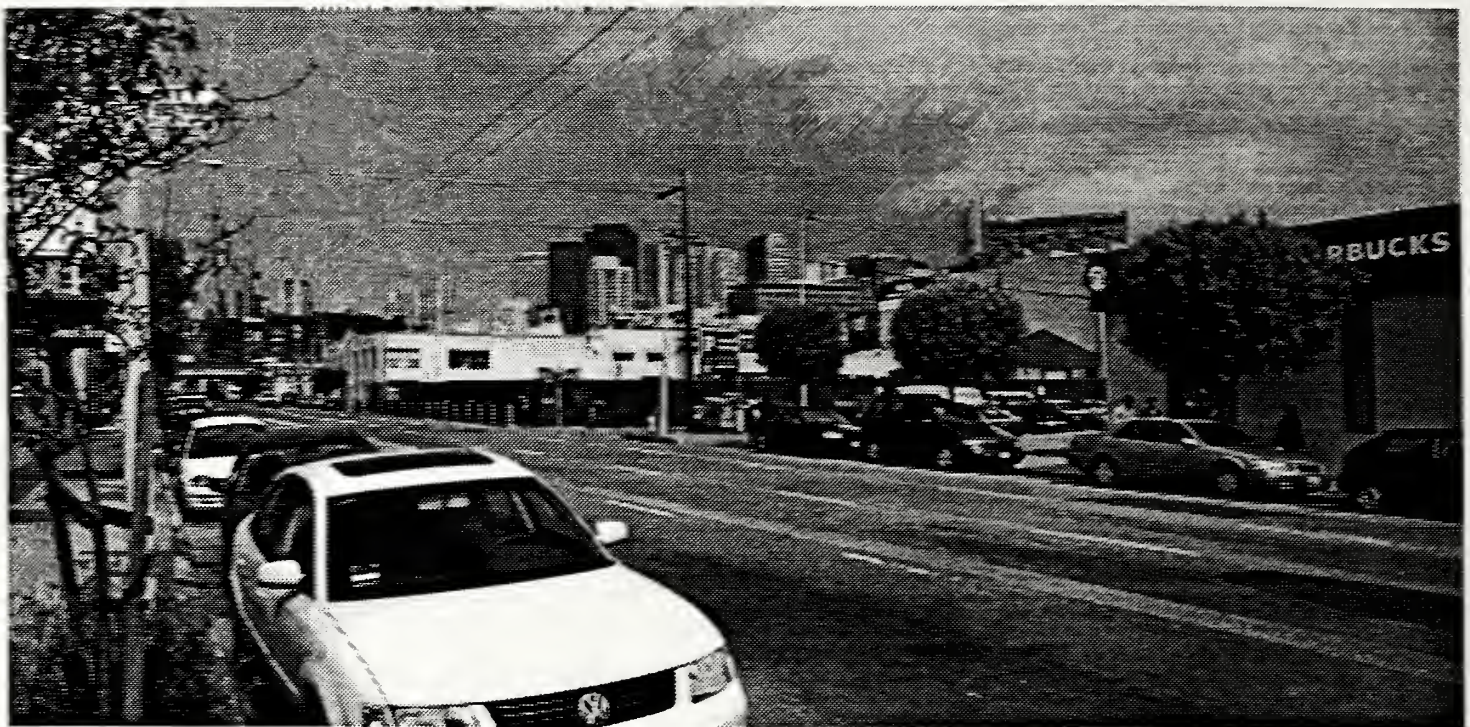


PHOTO LOCATION MAP FIGURE 8





Looking north (project site enclosed by fence)



Looking south (project site enclosed by fence)

Source: Square One Productions

## EXISTING VIEWS ON FOURTH STREET FIGURE 9





Freelon Street



Welsh Street

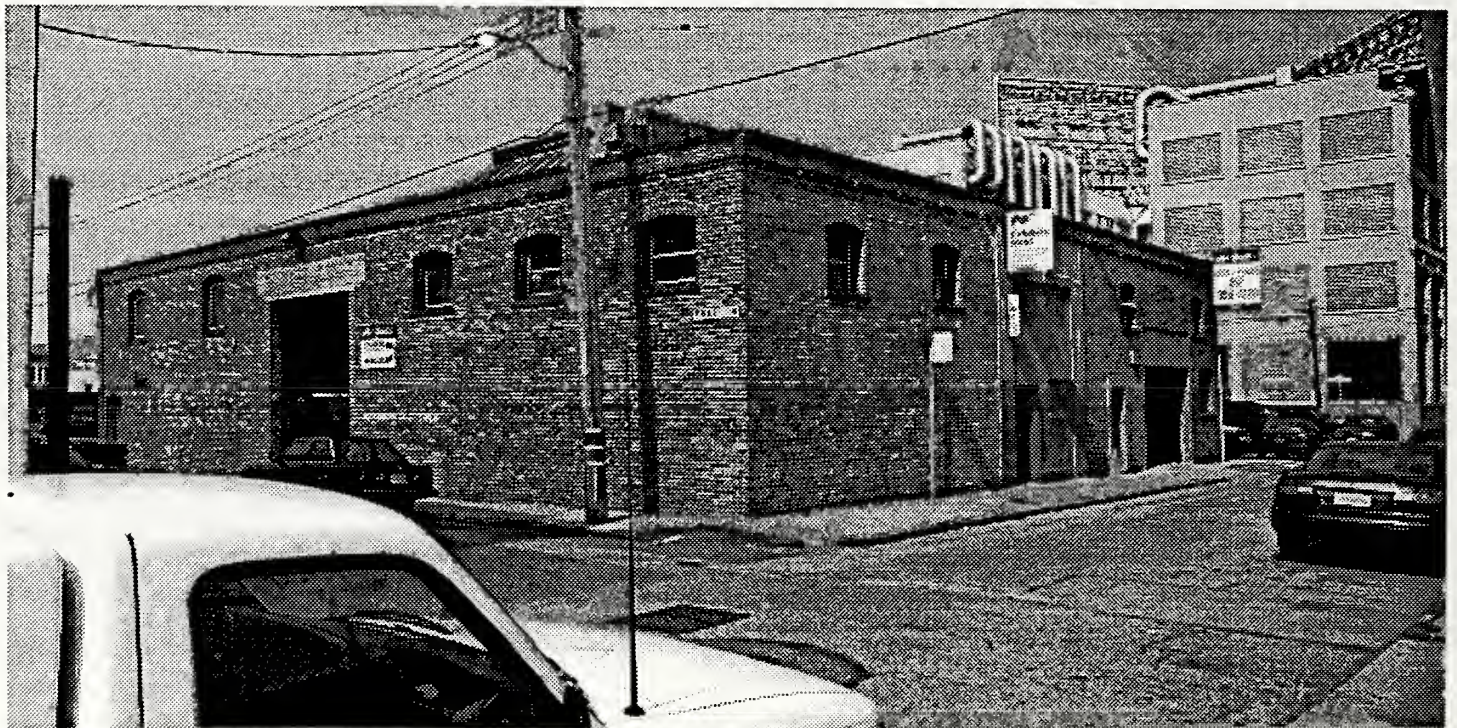
Source: Square One Productions

## EXISTING VIEWS LOOKING EAST ON FREELON AND WELSH STREETS FIGURE 10





Freelon Street



Zoe Street

Source: Square One Productions

## EXISTING VIEWS LOOKING WEST ON FREELON AND NORTH ON ZOE FIGURE 11



Other zoning in the project vicinity to the east and south is SSO (Service/Secondary Office) Use District. The *Planning Code* (Section 818) states that the SSO District "is designed primarily to accommodate small-scale light industrial, home and business services, arts activities, live/work units, and small-scale professional office space and large-floor-plate 'back office' space for sales and clerical work forces... Office, general commercial, most retail, service and light industrial uses are principal permitted uses." Under the interim controls, live/work units are a principal permitted use in the mixed use housing zone where the project site is located.

The project site is located in the planned South End Service District (SES) Zoning District in which the live/work portion of the proposed project would be a principal permitted use, and a community parking garage would be permitted as a conditional use. The proposed SES District would be designed to "protect and facilitate the expansion of existing general commercial, manufacturing, home and business service, live/work use, arts uses, light industrial activities, multimedia businesses and small design professional office firms" (proposed *Planning Code* Section 819). For projects that do not meet the more restrictive provisions of the SES District, there would be automatic Discretionary Review by the Planning Commission.

The project site is located in the diverse South of Market Planning District. This mixed-use area is somewhat dominated by a wide variety of commercial and office uses, but also includes live/work, residential, entertainment, warehouse, light industrial, and other uses (Figure 12, page 25). The sub-block to the north of the site is primarily occupied by commercial uses in two-story buildings fronting on Bryant Street. Several auto repair businesses are located in the block, including one that fronts onto Welsh Street. Only one other business has a frontage on Welsh Street, a daycare center for dogs. Other businesses in this block include a chair store, a print shop, a restaurant, and a four-story office building housing high-technology companies, management consultants, and real estate companies. A three-story live/work building is located across Zoe Street from the site and an adjacent three-story building also appears to be live/work. South of these two buildings is a fenced private parking lot. East of the site is a clothing factory, design studio, motorcycle sales/service/parts business, bar, two retail businesses, two residential duplexes, a vacant two-story building, an unidentifiable use, and a five-story live/work building.

The sub-block immediately south of the project site, bounded by Freelon, Zoe, Brannan and Fourth Streets contains a public parking lot and, at the corner of Brannan and Fourth Streets, a one-story building housing a bank, restaurant, and coffee shop. Also in this block are a variety of one- and two-story buildings housing offices, artists' and design studios, clothing outlet, paratransit broker, Velcro factory store, a vacant building, and a U.S. Post Office station. The majority of these uses front on Brannan Street, although two of them face onto Freelon Street.

Across Brannan Street at the corner of Fourth Street is a large three-story live/work building with approximately 85 tenants. To the west of the project site, Fourth Street between Brannan and Bryant Streets is lined predominantly with two-story buildings housing commercial uses, although a three-story residential hotel over a restaurant/bar is located at the corner of Fourth and Bryant and a three-story,



# LEGEND

Residential/Residential Hotel

Live/work

Office

Commercial/Service

Retail/Rest/Night Club

Cultural/Institutional/religious

Light mfg/storage/warehouse

Parking

V Vacant building

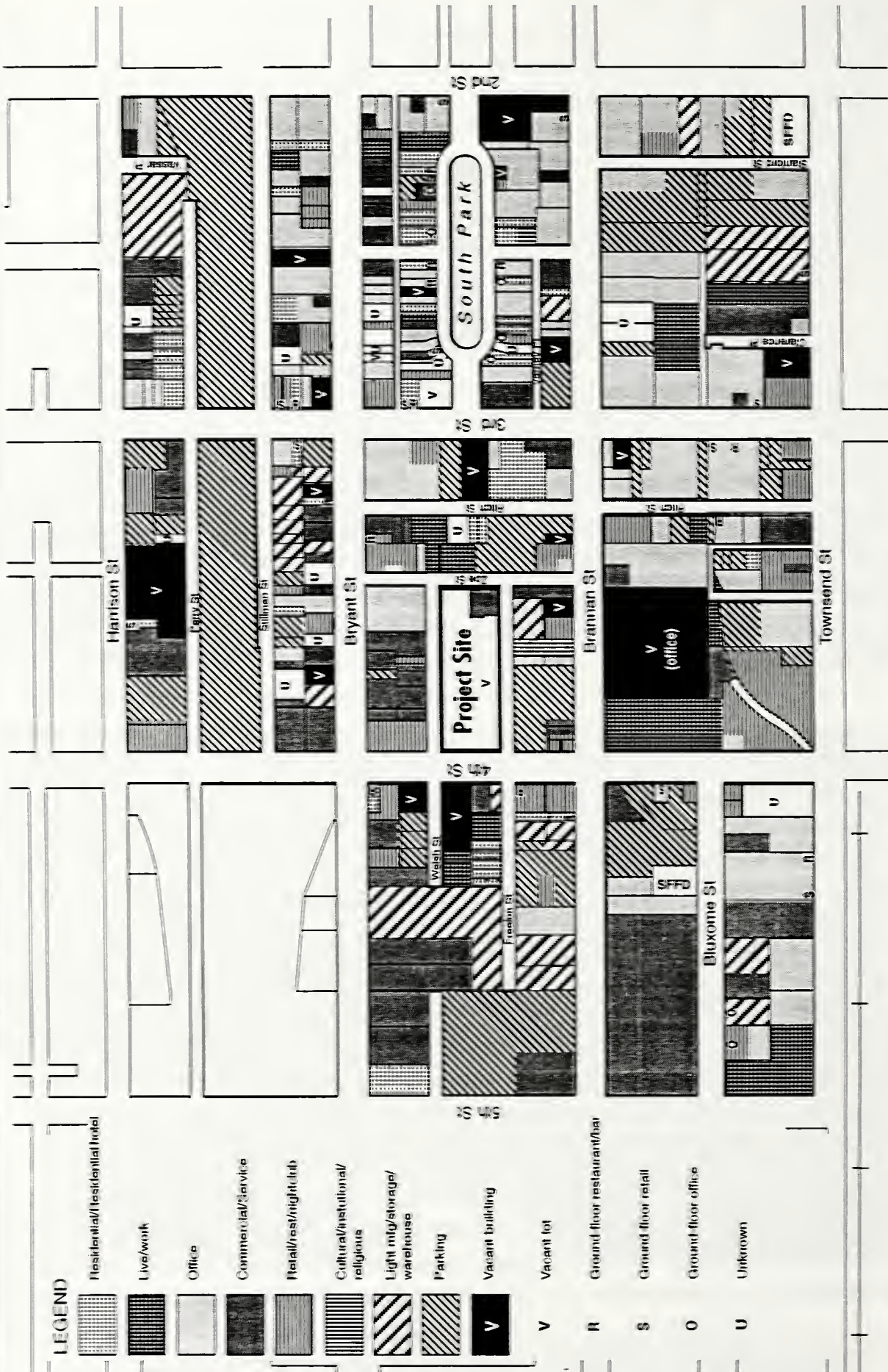
V Vacant lot

R Ground floor restaurant/bar

S Ground floor retail

O Ground floor office

U Unknown



0 400 FEET (APPROXIMATE)

Source: During Associates

EXISTING LAND USE FIGURE 12



10-unit apartment building over a restaurant is at the corner of Fourth and Freelon Street. Other uses along Fourth Street include a restaurant, a diving shop, women's wear store, office building, and flower and gift shop. In addition, two large buildings are undergoing renovation at the corner of Fourth and Welsh Streets.

Welsh and Freelon Streets west of the project site on the opposite block face of Fourth Street, are dead-end streets that harbor a small concentration of residential uses. Approximately half a dozen two- and three-story apartment buildings and single-family residences are on Freelon Street, as well as a three-story live/work building. A four-story live/work building is located on Welsh Street, next to a small one-story building that contains an artist's studio.

Another concentration of residential use is located to the east of the project site, in the block bounded by Brannan, Second, Bryant, and Third Streets. Known as South Park, this block features small two- and three-story buildings, some of them restored Victorians, facing a central oblong park encircled by South Park Avenue. A mixture of residential and retail uses, along with numerous restaurants, are housed in this block. Other large land uses in the project vicinity include the San Francisco Tennis Club, occupying the western half of the block bounded by Fourth, Brannan, Fifth, and Bluxome Streets, and the San Francisco Newspaper Agency's fleet maintenance facility, located at the northeast corner of Fifth and Brannan Streets. Currently under construction at 475 Brannan Street is an approximately 240,000-square-foot project which would house office and community parking uses. The elevated I-80 (James Lick Skyway) Freeway passes north of the project site between Harrison and Bryant Streets. Public parking is provided underneath the freeway; however, Caltrans is currently using the space to prepare for the Bay Bridge retrofit project.

## APPROVALS

The project is located within the boundaries of the South of Market Plan, an Area Plan of the *San Francisco General Plan*. The South of Market Plan is the policy document that guides growth and development in the western portion of San Francisco's greater South of Market area. Policies governing the area outside the Plan study area, yet within the greater South of Market area, have been established in previous planning documents, including the *Yerba Buena Center Redevelopment Area Plan* recently amended, the *Rincon Point-South Beach Redevelopment Area Plan*, the *Mission Bay Plan*, the *Waterfront Land Use Plan*, the interim Ballpark Vicinity Special Use District, the interim controls creating industrial protection zones and mixed-use housing zones, and the proposed South End District. The area covered by the South of Market Plan is roughly bounded by Mission Street on the north, Twelfth Street on the west, Townsend Street on the south, and Second Street on the east. The Plan contains objectives and policies that address the following issues: provision of industrial and commercial space; preservation of existing and often housing and industrial stock; urban form; accommodation of growth; encouragement of new residential housing development; and movement to, from, and within the South of Market area (transportation). The South of Market Plan was intended to guide development in this area well into the next century, including the location, intensity, and character of new and expanded business and residential activity, the buildings that house those activities, and the public facilities and



resources provided in the area. The Plan designates the project site for Retail/Business Service/Industrial use, with low-income housing as a conditional use.

*The San Francisco Planning Code* implements the *San Francisco General Plan*, and governs permitted uses, densities, and configurations of buildings within San Francisco. The *Planning Code* incorporates by reference the City's Zoning Maps. Permits to construct new buildings or to alter or to demolish existing buildings may not be issued unless the proposed project conforms to the Planning Code or an exception is granted pursuant to provisions of the Code.

The project is within an SLI (Service/Light Industrial) District and the Mixed Use Housing district under interim control legislation. As a live/work building with retail space, the proposed project is a principal permitted use in the SLI District and in the interim control mixed-use housing districts. The project site is in a 50-X Height and Bulk District, which permits construction of live/work buildings up to 55 feet in height. The project would comply with zoning requirements pertaining to height.

On August 5, 1999, the Planning Commission imposed interim zoning controls for the City's industrially zoned land, for a period of 15 months or the adoption of permanent zoning controls, whichever occurs earlier. The interim zoning controls create an Industrial Protection Zone (IPZ) and Mixed Use Housing Zones within the City's industrially zoned land. Within the IPZ, new housing uses, including live/work projects, are generally not permitted. Within the Mixed Use Housing Zones, live/work units are principal permitted uses. On the IPZ or MUHZ Buffer Zone boundary between these two zones, new live/work or residential projects would be allowable as a Conditional Use. The proposed project is located on a block that has been designated within the proposed Mixed Use Housing Zone where new live/work projects are permitted.

As noted above, the project is in the proposed South End Service District (SES) where live/work would be a principal permitted use and a community parking garage would be permitted as a conditional use.

Environmental plans and policies, like the Bay Area Air Quality Management District's 1997 *Clean Air Plan*, directly address physical environmental issues and/or contain standards or targets that must be met in order to preserve or improve specific components of the City's physical environment. The proposed project would not obviously or substantially conflict with any such adopted environmental plan or policy. On November 4, 1986, the voters of San Francisco passed Proposition M, the Accountable Planning Initiative, which established eight Priority Policies under Planning Code Section 101.1. These policies are: preservation and enhancement of neighborhood-serving retail uses; protection of neighborhood character; preservation and enhancement of affordable housing; discouragement of commuter automobiles; protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; earthquake preparedness; landmark and historic building preservation; and protection of open space. Prior to issuing a permit for any project which requires an Initial Study under the California Environmental Quality Act (CEQA), or adopting any zoning ordinance or development agreement, the City is required to find that the proposed project or legislation is consistent with the Priority Policies. The motion by the

Planning Commission approving or disapproving the project will contain the analysis determining whether the project is in conformance with the Priority Policies.

## General Plan

The Planning Commission would review the project in the context of applicable objectives and policies of the *San Francisco General Plan*. The *General Plan*, which provides general policies and objectives to guide land use decisions, contains some policies that relate to physical environmental issues. In general, potential conflicts with the *General Plan* are considered by the decision-makers (normally the Planning Commission) independently of the environmental review process, as part of the decision to approve, modify, or disapprove a proposed project. Any potential conflict not identified here could be considered in that context, and would not alter the physical environmental effects of the proposed project. Some of the key objectives and policies of the General Plan are noted here:

## South of Market Plan

- Objective 1, Policy 2, to “Facilitate the preservation of and promote the development of affordable ‘live/work’ loft studio space.”
- Objective 1, Policy 4, to “Provide sufficient land and building area to accommodate the reasonable growth and expansion of the South of Market’s diverse economic activities.”
- Objective 3, to “Encourage the development of new housing, particularly affordable housing.”
- Objective 3, Policy 1, to “Increase the supply of housing without adversely affecting the scale, density, and architectural character of existing residential or mixed use neighborhoods or displacing light industrial and/or business service activities.”
- Objective 5, to “Minimize the impact on the livability of the area of auto traffic through and to/from the South of Market.”
- Objective 5, Policy 1, to “Provide incentives for the use of transit, taxi, carpools and vanpools, and reduce the dependence on automobile parking facilities, particularly by area workers.
- Objective 5, Policy 4, to “Provide adequate parking and loading resources for new South of Market residential and business development.”
- Objective 5, Policy 5, to “Provide an adequate amount of on-street curbside freight loading spaces throughout the South of Market.”
- Objective 7, Policy 2, to “Preserve the architectural character and identity of South of Market residential and commercial/industrial buildings.”
- Objective 8, Policy 2, to “Encourage the location of neighborhood-serving retail and community service activities throughout the South of Market.”
- Objective 8, Policy 4, to “Create new parks and recreational facilities for the enjoyment by area residents, workers, and visitors. (Establish an open space requirement for new commercial/industrial developments and conversion of space to office use. Establish on-site open space requirements for all new residential development.)”
- Objective 8, Policy 5, to “Create a visually prominent, safe and clean pedestrian circulation network throughout the South of Market.”
- Objective 8, Policy 6, to “Restore sidewalks as pedestrian circulation spaces and establish a pedestrian network to improve the safety and convenience of pedestrian travel to and throughout the South of Market.”



## Commerce and Industry Element

- Objective 2, to “Maintain and enhance a sound and diverse economic base and fiscal structure for the city.
- Objective 2, Policy 1, to “Seek to retain existing commercial and industrial activity and to attract new such activity to the city.

## Transportation Element

- Policy 30.5, to “In any large development, allocate a portion of the provided off-street parking for compact automobiles, vanpools, bicycles, and motorcycles commensurate with standards that are, at a minimum, representative of the city’s vehicle population.”
- Policy 30.6, to “Make existing and new accessory parking available to nearby residents and the general public for use as short-term or evening parking when not being utilized by the business or institution to which it is accessory.”
- Objective 32, to “Limit parking in downtown to help ensure that the number of auto trips to and from downtown will not be detrimental to the growth or amenity of downtown.”
- Policy 40.1, to “Provide off-street facilities for freight loading and service vehicles on the site of new buildings sufficient to meet the demands generated by the intended uses. Seek opportunities to create new off-street loading facilities for existing buildings.”

## Urban Design Element

- Objective 1, Policy 3, to “Recognize that buildings, when seen together, produce a total effect that characterizes the city and its districts.”
- Objective 2, Policy 6, to “Respect the character of older development nearby in the design of new buildings.”

## Community Safety Element

- Policy 2.1, to “Assure that new construction meets current structural and life safety standards.”

## IMPACTS

The proposed project would change the land use on the project site from mostly vacant with commercial uses to live/work and retail uses. The changes in land uses on the site are not considered a significant impact for a variety of reasons. Live/work is a permitted land use in the SLI District and the proposed use and structures would not be substantially or demonstrably incompatible with the existing variety of the residential, commercial, and light industrial uses in the project area. Further, while the construction of the proposed project would introduce new residents onto the project site, light industrial and commercial uses have co-existed with residential uses for many years in the same area. Additionally, residents of the new live/work units would be made aware that businesses in the area generate odors, noise, and truck and auto traffic typical of commercial and industrial uses. Notices of Special Restrictions are recorded with live/work projects, which specify the use restrictions on live/work units, to ensure that potential buyers are aware that they would be purchasing non-traditional commercial/living units in a commercial and light industrial area. This would serve to assure that the new occupants are aware of the conditions surrounding the project site. Similarly, the proposed infill development would not disrupt or divide the physical arrangement of the neighborhood.



The construction of live/work units in the City has raised concerns about existing and potential heavy commercial, light industrial, and other businesses being displaced by recent live/work developments. The proposed live/work project would not cause substantial direct displacement of commercial and industrial uses on the site because most of the site is vacant. The proposed live/work project would cause limited direct displacement of commercial and industrial uses on the site because there are two businesses with four current employees on the site, a relatively small amount. Moreover, one of the businesses is owned by the seller of the property.

In the past few years, there has been considerable controversy concerning competition and conflicts within the City's industrial zones between live/work and production, distribution and repair (PDR) business sectors. The Planning Commission's interim zoning controls, adopted August 5, 1999, are intended to strike a balance between the need for housing and the need to ensure sufficient land for PDR uses and the jobs they provide, pending further study that is anticipated to lead to consideration of permanent controls addressing this issue. The Commission's action was based on considerable background information and analysis, available in Department File No. 1999.346TZ. Among the data presented to the Commission in this context were estimates of anticipated housing increases and employment losses associated with a range of policy proposals.

Policy questions regarding the appropriate amounts of land needed to support different land uses in the City are related to economic and planning issues and not CEQA environmental issues. The Commission's adoption of interim controls and ultimate consideration of permanent policy and code amendments are intended, in part, to protect and preserve the City's diminishing supply of industrially zoned land and building space for PDR businesses. The proposed live/work project is a small part of larger economic forces that may limit available space for PDR uses, due to the relative inability of PDR uses to compete with market pressures favoring live/work, residential, office and multimedia uses. Reduction of PDR/industrial land and space, both past and potential, is of great concern as a policy matter because it relates to potential loss and/or displacement of some types of businesses and jobs and other economic, social, and policy issues. Where there may be competition between two permitted uses in a zoning district, and one use has an economic advantage over another, any potential displacement of one use by another would be a socioeconomic effect resulting primarily from market forces. Only when the emergence of a new use has potential significant physical adverse effects on the environment would it be appropriate to call the effects of that new use an environmental impact in the context of CEQA. Therefore, these issues, because they are socio-economic in nature, are not considered significant impacts on the environment under CEQA and are discussed in this document for informational purposes only. The potential physical environmental impacts of the proposed live/work development (both individual and cumulative) have been analyzed in this EIR, and the Planning Department has not found any of those impacts to be significant.

The purchase of the existing building on the site by the project sponsor has not been finalized. Once the building is part of the project, it would be demolished and the two existing commercial businesses (an auto body repair shop and commercial sign shop) would be displaced from the southeast corner



of the site. These businesses would likely relocate within San Francisco, and their displacement would not be a significant adverse effect of the project.

Construction of the proposed project would result in the removal of about 70,400 square feet of land currently zoned for service and industrial uses, thereby decreasing the City's supply of land zoned for industrial uses by about 0.04 percent. The San Francisco Planning Department is presently conducting a citywide land use study with an emphasis on the need for housing and the space needs for industrial businesses. As a result of the ongoing study, the Planning Commission has expanded the boundaries of Industrial Protection Zones and has proposed the creation of new mixed-use areas, including the project site, where residential and live/work use would be allowed as part of the Commission's effort to balance the need for both housing and industries. The loss of industrially zoned land would not be significant because it would constitute such a small portion of the City's industrially zoned land.

## B. TRAFFIC AND CIRCULATION

A transportation study for the proposed project was conducted by CHS Consulting Group.<sup>1</sup> The results are summarized in this section.

### Setting

The project site is located in an area of the City that typically becomes congested with traffic during the afternoon business commute on streets leading to the regional freeways. The project site is within a few blocks of half a dozen freeway on-ramps and off-ramps, so some of the nearby streets serve as major commute corridors (Figure 13, page 32). Bryant Street in particular, which leads to two Bay Bridge on-ramps, is subject to traffic congestion during the PM peak hour, which generally occurs between 4:30 and 5:30 p.m. Conditions on the area's regional freeways, including I-280, U.S. 101, and particularly I-80, are also congested during the PM peak hour, which exacerbates the backed-up conditions on the surrounding surface streets.

The traffic study evaluated existing and future traffic conditions within a 12-block study area approved by the San Francisco Planning Department. The study area is bounded by Townsend Street on the south, Sixth Street on the west, Harrison Street on the north, and Second Street on the east. Within the study area, Harrison, Bryant, Brannan, Third, Fourth, Fifth, and Sixth Streets are all identified in the Transportation Element of the *San Francisco General Plan* as Major Arterial streets in the vicinity of the project. Major Arterials are defined in the *General Plan* as "cross-town thoroughfares whose primary function is to link districts within the City and to distribute traffic from and to the freeways." Of these Major Arterials, all but Fourth and Fifth Streets are also part of the Major Arterial System of the Congestion Management Program (CMP), established in accordance with State Congestion Management legislation, and of Metropolitan Transportation Commission's (MTC) regional network of freeways and streets that relieve traffic congestion and serve a regional transportation function.

The *General Plan* identifies Third and Fourth Streets as Transit Important Streets, on which priority is given to transit vehicles over autos during commute and business hours on weekdays, usually along







curbside lanes. The *General Plan* identifies Second Street as a Neighborhood Pedestrian Street, while Welsh, Freelon, and Zoe Streets are local streets. Citywide Bicycle Routes are designated on Townsend, Second, and Fifth Streets.

One-way streets in the traffic study area include Harrison (westbound), Bryant (eastbound), Third (northbound), and Fourth (southbound) Streets, which all generally provide four travel lanes, except during peak commute periods, when Bryant and Third Streets convert to five and six lanes, respectively. On-street parking is allowed on both sides of Harrison, Bryant, and Third, except during the peak commute periods (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.), when both parking lanes on Third Street and the north-side parking lane on Bryant Street (PM peak only) are used as travel lanes. Bryant provides direct access to and from I-80, with on-ramps at Fifth, Eighth, and Sterling, and off-ramps at Fourth and Seventh Streets. Brannan and Townsend Streets are oriented east-west, while Fifth and Sixth Streets are oriented north-south; all four streets provide two travel lanes in each direction and parking on both sides of the street. Second Street is also a two-way street, with one northbound and one southbound travel lane, except during the PM peak period, when one of the two parking lanes becomes a second northbound travel lane. Welsh, Freelon, and Zoe Streets are each 21 feet wide, with on-street parking along one side of the street. Due to their narrow width, they should technically be one-way alleys, but in practice they function as two-way streets with sidewalks on one side of the street (north side on Welsh Street, south side on Freelon Street, and east and west on Zoe Street).

There are 24 MUNI bus stops for 12 different bus lines in the project study area, with additional stops located within easy walking distance of the project site. Access to the nearest BART station and the nearest SamTrans, Golden Gate Transit, and AC Transit bus stops requires a long walk or transfer to/from a MUNI bus line. The CalTrain station is located a full block south of the site, at Fourth and Townsend Streets. A survey of existing off-street parking facilities in the study area was conducted on March 30, 1999. The survey determined that there are 15 public parking lots in the study area, providing approximately 2,940 parking spaces. The overall mid-afternoon weekday occupancy rate is currently about 84 percent. On-street parking in the area is effectively at capacity during the mid-afternoon weekday.

Qualitative field observations conducted during the midday peak period revealed that pedestrian flows in the project area are low, with less than 100 pedestrians per hour along both the major streets and the alleys. Pedestrians in the area are able to maintain normal walking speeds and pass other pedestrians as needed.

## Impacts

### SIGNIFICANCE CRITERIA

Although the City and County of San Francisco has not formally adopted significance criteria for traffic impacts, the threshold for a significant adverse impact on traffic has been established by long-standing practice as the deterioration in level of service at a signalized intersection to LOS E or F (LOS A through

LOS D are considered acceptable operational levels of service). In addition, a significant impact would normally be found if a project would substantially interfere with existing circulation patterns, create major traffic hazards, or contribute substantially to cumulative traffic increases that would cause a deterioration in levels of service to unacceptable levels at intersections that would otherwise operate at acceptable levels. Although the City has not formally adopted significance criteria for potential impacts related to transit, parking, pedestrian, or bicycle impacts, the following criteria are applied to the analysis in this EIR. For transit effects, a project would have a significant effect if it would cause a substantial increase in transit demand that cannot be accommodated by existing or proposed transit capacity, resulting in unacceptable levels of transit service.

Regarding parking, it is City policy to discourage the provision of facilities that encourage automobile use and emphasize the importance of public transit use. Therefore, an increase in parking demand generated by a project would not normally be considered a significant impact even if the increased demand cannot be met by existing or proposed parking facilities. With respect to pedestrian or bicycle impacts, if a project would result in substantial pedestrian overcrowding, create particularly hazardous conditions for pedestrians or bicyclists, or otherwise substantially interfere with pedestrian and bicycle accessibility, it would be considered to have a significant effect. Generally, construction-period transportation impacts would not be considered significant because they would be temporary.

## IMPACT ANALYSIS

The traffic impact analysis examines project-generated impacts that would occur upon completion and full occupation of the project, as well as the project's contribution to future cumulative impacts for the year 2015. Cumulative impacts are analyzed using two different methodologies. The Interim Cumulative assessment is based on a detailed analysis recently completed that evaluates 14 development projects that have been proposed for the area bounded by Harrison Street to the north, The Embarcadero to the east, China Basin to the south, and Sixth Street to the west.<sup>2</sup> The Cumulative Year 2015 analysis is based on land absorption growth rates derived in the analysis performed for the *Transbay Terminal Redevelopment Area Plan EIR Transportation Study*.<sup>3</sup>

### Project Travel Demand

Based on the proposed live/work, retail uses, and the community parking garage, the project would generate approximately 5,629 new person trips and approximately 948 new PM peak-hour (4:30 PM – 5:30 PM) person trips on a daily basis. The trips associated with the proposed retail use are based on the trip generation rate of 150 trips per 1,000 square feet of space,<sup>4</sup> while the live/work trips are conservatively based on 10 trips per unit, although a recent survey determined that live/work units in San Francisco generate an average of 3.3 daily person trips per unit.<sup>5</sup> The vehicle trip generation for the proposed community garage was estimated on the traffic generation for other parking lots/garages in the South of Market Area. PM peak hour person-trips were assigned to different travel modes (i.e., auto, transit, walk, and "other" trips), based on supplemental information of the San Francisco *Citywide Travel Behavior Study* (CTBS) for Superdistrict 1.<sup>6</sup> Of the 948 PM peak-hour person trips generated

by the project, approximately 565 would be by automobile, 163 trips would be made by transit, and 220 would be made by walking, bicycling, or other modes. The 565 new PM peak-hour automobile person trips represent about 296 new vehicle trips (141 inbound and 155 outbound), including the addition of vehicle trips that would be generated by the public parking spaces in the underground garage (project generated vehicle trips are derived by dividing person trips by auto vehicle occupancy rates which vary based on land use and work/non-work rates).

The majority (85 percent) of the 296 new PM peak-hour vehicle trips generated by the project would be destined for locations within San Francisco, while the remainder would be headed for the East Bay, the Peninsula/South Bay, and the North Bay.

## **Traffic Impacts**

### ***Local Intersection Traffic***

Seven study intersections were selected in the vicinity of the project site for traffic analysis. The two intersections of Fourth and Welsh Streets and Bryant and Zoe Streets have no signal control. The five signal-controlled intersections include: Bryant Street/Third Street, Bryant Street/Fourth Street, Bryant Street/Fifth Street, Brannan Street/Third Street, and Brannan Street/Fourth Street.

All of the study intersections are currently operating at LOS C or better during the weekday PM peak hour, with the exception of Bryant Street/Fifth Street, which operates at LOS F.<sup>7</sup> With implementation of the proposed project, levels of service would decline at Brannan and Third Streets from LOS B to LOS C and at unsignalized Fourth and Freelon Streets from LOS C to LOS D. The impact at Third and Brannan Streets would be caused by the increased volume of left-turn and through movements on the eastbound approach to the intersection. At Fourth and Freelon Streets, an increase in outbound traffic from the project site would result in the additional congestion. The project would also slightly add to existing delays at the Bryant Street/Fifth Street intersection, a less-than-significant impact which cannot be mitigated. Most of the delays at this intersection are due to back-ups on the eastbound and northbound approaches to the I-80 eastbound on-ramp. The LOS at the other study intersections would remain unchanged with implementation of the proposed project. Table 1 on the following page shows the existing and post-project average delay and LOS for each of the study intersections.

Operation of the project would also increase the existing traffic flow on Welsh, Freelon, and Zoe Streets which currently operate as two-way streets. The general congestion and traffic conflicts on the site's surrounding streets would be considered a significant traffic impact. To mitigate these impacts, and in order to provide less congested, safer and more efficient traffic flow in the area, one-way street patterns would be established by Department of Parking and Traffic for these streets: westbound for Welsh Street, eastbound for Freelon Street and northbound for Zoe Street. The 21-foot wide streets would have a one-way lane and a parking lane. This circulation pattern would allow vehicles to access and exit the project garage from both Welsh and Freelon Streets, as well as to enter from Brannan Street and exit to Bryant Street.

Although this mitigation measure would reduce the amount of traffic congestion and conflicts on Welsh and Freelon Streets, it would cause the unsignalized intersection of Welsh and Fourth Streets to fall to



an LOS F (the average delay for the total intersection and Welsh Street, Fourth Street would be LOS D). This would not be considered a significant environmental impact since the Welsh and Fourth Streets intersection is unsignalized and the vast majority of traffic at the intersection, which uses the Fourth Street approach, would be unaffected. It is not uncommon for minor approaches to unsignalized intersections to have LOS F in the City. Additionally, the LOS F at Welsh and Fourth Streets would not impact the larger intersection of Fourth and Brannan Streets.

### Interim Cumulative Impacts

To ensure that the cumulative impact analysis did not neglect the potential impacts of anticipated development in the project vicinity, an interim cumulative impact analysis was conducted that examined the effects of 14 development projects that have been proposed in the area bounded by Harrison Street to the north, China Basin to the south, 6<sup>th</sup> Street to the west, and the Embarcadero to the east. The analysis projected future traffic, transit, and parking effects. The full details of the analysis are presented in *China Basin/South Beach Interim Year Transportation Analysis*, previously referenced. According to this analysis, the intersections of Bryant/Third, Bryant/Fourth, and Brannan/Fourth would still operate at

<b>Table 1</b> <b>Intersection Level of Service:</b> <b>Existing-Plus-Proposed Project Conditions</b> <b>Weekday PM Peak Hour</b>				
	Existing		Existing Plus Project	
Intersection	Delay <sup>a</sup>	LOS	Delay	LOS
<b>Signalized</b>				
Bryant Street/Third Street	18.2	C	18.2	C
Bryant Street/Fourth Street	12.1	B	13.1	B
<b>Bryant Street/Fifth Street</b>	<b>&gt;60</b> (V/C 1.119)	<b>F</b>	<b>&gt;60</b> (V/C 1.052)	<b>F</b>
Brannan Street/Third Street	15.7	B	17.4	C
Brannan Street/Fourth Street	12.4	B	12.6	B
<b>Unsignalized</b>				
Bryant Street/Zoe Street <sup>b</sup>	0.2/3.5	A/A	0.4/3.7	A/A
Fourth Street/Welsh Street <sup>b</sup>	0.6/16.6	A/C	3.4/29.8	A/D

Source: CHS Consulting Group, February 2000

<sup>a</sup> Delay presented in seconds per vehicle. For signalized intersections, the delay/LOS relationship is as follows: LOS A, 0-5 seconds per vehicle; LOS B, 5.1-15.0 seconds per vehicle; LOS C, 15.1-25.0 seconds per vehicle; LOS D, 25.1-40 seconds per vehicle; LOS E, 40.1-60 seconds per vehicle; and LOS F, more than 60 seconds per vehicle. For unsignalized intersections, the delay/LOS relationship is as follows: LOS A, 0-5 seconds per vehicle; LOS B, 5.1-10.0 seconds per vehicle; LOS C, 10.1-20.0 seconds per vehicle; LOS D, 20.1-30 seconds per vehicle; LOS E, 30.1-45 seconds per vehicle; and LOS F, more than 45 seconds per vehicle.

<sup>b</sup> LOS is presented as average intersection delay/minor approach delay.

acceptable levels (LOS D or better), while the intersections of Bryant/Fifth (already operating at LOS F), Brannan/Third, and the unsignalized intersection of Fourth/Welsh (Welsh Street approach only, the intersection as a whole would operate at LOS A) would operate at LOS F, as shown in Table 2 below. The LOS at the intersection of Brannan/Third could be mitigated to LOS D by restriping the roadway to provide exclusive left-turn pockets and associated signal improvements. The project's contribution to the incremental increase in traffic growth from the existing conditions to the interim year (not the total amount of growth in the interim year) would be approximately 12.8 percent at Bryant/Fifth, about 13 percent at Brannan/Third and approximately 29.9 at the Fourth/Welsh Streets.

### Future (Year 2015) Cumulative Impacts

Future (Year 2015) cumulative traffic impacts were projected for the year 2015 based on a 1-percent annual growth rate between 1999 and 2015, and other assumptions, as calculated in the previously referenced *Transbay Terminal Redevelopment Area Plan EIR Transportation Study*.

<b>Table 2</b> <b>Intersection Level of Service:</b> <b>Existing-Plus-Project and Interim Cumulative</b> <b>Weekday PM Peak Hour</b>						
Intersection	Existing		Existing Plus Project		Interim Year Cumulative (including Project)	
	Delay <sup>a</sup>	LOS	Delay	LOS	Delay	LOS
<b>Signalized</b>						
Bryant/Third	18.2	C	21.9	C	33.1	D
Bryant/Fourth	12.1	B	13.1	B	14.9	B
Bryant/Fifth	>60 (V/C 1.119)	F	>60 (V/C 1.052)	F	>60 (V/C 1.331)	F
Brannan/Third	15.7	B	17.4	C	>60 (V/C 1.24)	F <sup>b</sup>
Brannan/Fourth	12.4	B	12.6	B	24.4	C
<b>Unsignalized</b>						
Bryant/Zoe <sup>c</sup>	0.2/3.5	A/A	0.4/3.7	A/A	0.7/4.0	A/A
Fourth/Welsh <sup>c</sup>	0.6/16.6	A/C	3.4/29.8	A/D	7.7/ >60 (NA)	A/F

Source: CHS Consulting Group, February 2000

<sup>a</sup> Delay presented in seconds per vehicle. For signalized intersections, the delay/LOS relationship is as follows: LOS A, 0-5 seconds per vehicle; LOS B, 5.1-15.0 seconds per vehicle; LOS C, 15.1-25.0 seconds per vehicle; LOS D, 25.1-40 seconds per vehicle; LOS E, 40.1-60 seconds per vehicle; and LOS F, more than 60 seconds per vehicle. For unsignalized intersections, the delay/LOS relationship is as follows: LOS A, 0-5 seconds per vehicle; LOS B, 5.1-10.0 seconds per vehicles; LOS C, 10.1-20.0 seconds per vehicle; LOS D, 20.1-30 seconds per vehicle; LOS E, 30.1-45 seconds per vehicle; and LOS F, more than 45 seconds per vehicle.

<sup>b</sup> Can be improved to LOS D with the addition of an eastbound left-turn pocket.

<sup>c</sup> LOS is presented as average intersection delay/minor approach delay.

By 2015, Third and Fourth Streets will have been reconfigured in the project vicinity in order to accommodate the proposed Central Subway for the MUNI Third Street Light Rail Transit project; the effects of these geometric changes on operations of study area intersections were included in the future cumulative impact analysis. The results of the analysis for the Future (Year 2015) Cumulative intersection levels of service are shown in Table 3, below. Three study area intersections would operate at LOS D or better conditions: the intersection of Brannan Street/Fourth Street would operate at LOS C during the weekday P.M. peak hour, Bryant/Fourth intersection would operate at LOS D, and the unsignalized intersection of Bryant/Zoe would operate at LOS A. The proposed project would contribute to the impacts at three signalized study intersections which would operate at the unacceptable level of LOS F: Bryant/Third, Bryant/Fifth, and Brannan/Third. The project's contribution to the cumulative impacts (as measured as a percentage of the total incremental growth for the cumulative conditions) at the LOS F intersections would be 4.0 percent at Bryant/Third, 6.6 percent at Bryant/Fifth, and 4.1 percent at Brannan/Third. Traffic impact at the intersection of Fourth/Welsh Streets would not be

<b>Table 3</b> <b>Intersection Level of Service:</b> <b>Existing and Future (Year 2015) Cumulative</b> <b>Weekday PM Peak Hour</b>						
Intersection	Existing		Existing Plus Project		Future Year (2015) Cumulative (including Project)	
	Delay <sup>a</sup>	LOS	Delay	LOS	Delay	LOS
<b>Signalized</b>						
Bryant/Third	18.2	C	18.2	C	>60 (C/V N/A)	F
Bryant/Fourth	12.1	B	13.1	B	32.2	D
Bryant/Fifth	>60 (V/C 1.119)	F	>60 (V/C 1.052)	F	>60 (V/C 1.427)	F
Brannan/Third	15.7	B	17.4	C	>60 (V/C N/A)	F
Brannan/Fourth	12.4	B	12.6	B	23.9	C
<b>Unsignalized</b>						
Bryant/Zoe <sup>b</sup>	0.2/3.5	A/A	0.4/3.7	A/A	0.4/3.7	A/A
Fourth/Welsh <sup>b</sup>	0.6/16.6	A/C	3.4/29.8	A/D	>60/>60 (V/C N/A)	F/F

Source: CHS Consulting Group, July 1999.

<sup>a</sup> Delay presented in seconds per vehicle. For signalized intersections, the delay/ LOS relationship is as follows: LOS A, 0-5 seconds per vehicle; LOS B, 5.1-15.0 seconds per vehicle; LOS C, 15.1-25.0 seconds per vehicle; LOS D, 25.1-40 seconds per vehicle; LOS E, 40.1-60 seconds per vehicle; and LOS F, more than 60 seconds per vehicle. For unsignalized intersections, the delay/ LOS relationship is as follows: LOS A, 0-5 seconds per vehicle; LOS B, 5.1-10.0 seconds per vehicles; LOS C, 10.1-20.0 seconds per vehicle; LOS D, 20.1-30 seconds per vehicle; LOS E, 30.1-45 seconds per vehicle; and LOS F, more than 45 seconds per vehicle.

<sup>b</sup> LOS is presented as average intersection delay/minor approach delay.



considered to be significant, because the impact would be on the Welsh Street approach only and those vehicles that would be affected would be primarily from the project site (Table 3 presents the LOS as an average for the total intersection and for Welsh Street only). Additionally, it is not uncommon for minor unsignalized streets to have a LOS F. Traffic on Fourth Street would not be significantly affected by project generated traffic, and traffic levels of service on Fourth Street at the intersection would be essentially the same with or without the proposed project.

## Transit

Potential project impacts on MUNI service capacity were evaluated in terms of screenlines, which are imaginary lines that subdivide the greater downtown area into travel corridors for purposes of evaluating transit ridership. The project would generate approximately 163 total PM peak hour transit trips (100 inbound and 63 outbound trips) of which about 141 would be on MUNI (including 27 transfer riders to the regional transit carriers). Since outbound trips are in the peak direction during the PM peak hour and all transit systems have considerably more riders in the outbound direction than in the inbound direction, transit impacts were analyzed in the outbound direction only. Approximately 55 project generated MUNI trips would be in the outbound direction (leaving the project site), 86 trips in the inbound direction (live/work occupants returning), and 25 of these trips would cross into another screenline. Thirty trips would remain internal to Superdistrict 1. About 19 of the 25 trips crossing into another screen line would cross into the Northeast Screenline, which would only operate at 64 percent of capacity with addition of the project trips. None of the screenlines would exceed 81 percent capacity utilization with the addition of project-generated transit trips. (Capacity utilization is the number of passengers divided by the capacity of the bus.) Therefore, the project's contribution to local transit trips would not adversely affect MUNI operations.

The MUNI screenline analysis indicates that the addition of the Interim Cumulative projects would not adversely affect MUNI operations. Although the 14 Interim Cumulative projects would increase ridership by 320 outbound transit trips distributed on lines serving the China Basin/South Beach area, capacity utilization on all lines would remain at 50 percent or less within the screenlines. Regional transit providers (i.e., BART, AC Transit, SamTrans, and Golden Gate Transit) would operate below capacity, with the exception of BART, whose capacity utilization would increase from 123 percent currently to 124 percent under Interim Cumulative conditions. If service increases planned by BART are implemented, the capacity utilization would be lower than these projections.

## Parking

The *San Francisco Planning Code* (Section 151) requires live/work projects to provide off-street parking at the rate of one space per 2,000 gross square feet and one space for each 500 square feet of retail space, for a total project requirement of 211 parking spaces. The project would provide 480 parking spaces, thus exceeding the *Planning Code* requirements and would comply with a Planning Commission policy that live/work projects provide one parking space for each live/work unit. The proposed project would generate a peak demand for approximately 334 parking spaces (306 long-term spaces and 28

short-term spaces). The project would therefore accommodate all project-generated parking demand on site, and would not result in adverse effects on parking in the project vicinity.

With the addition of Interim Cumulative projects, demand for parking in the Interim Study Area ( bounded by Harrison Street to the north, China Basin to the south, 6<sup>th</sup> Street to the west, and the Embarcadero to the east) would rise to approximately 7,357 parking spaces, while there would be a supply of about 6,485 spaces, representing a shortfall of 872 spaces. Although some of this shortfall could be met by existing on-street parking or by parking facilities outside the study area, the utilization rates of existing parking facilities indicate that these options would not be able to accommodate the entire 872-space shortfall. Furthermore, the shortfall could be substantially increased by the loss of parking spaces that would occur upon implementation of the planned I-80 freeway retrofit project. If the Interim Cumulative conditions overlap with the retrofit project, the parking shortfall would be about 5,372 spaces. Circulating drivers searching for parking could increase local traffic congestion. The scarcity of parking would likely induce a significant number of drivers to switch to other travel modes, such as public transit or carpools. However, it may be necessary to construct additional parking facilities or otherwise increase the supply of parking (e.g., through valet parking) in order to better accommodate all future parking demand in the area.

### Loading

Section 152 of the *San Francisco Planning Code* would require the project to provide two off-street loading spaces for the live/work component of the project and one loading space for the retail space, for a total of three off-street loading spaces. The *Planning Code* (Section 152.1) allows the substitution of two service van spaces for each full-size loading space, provided that at least one-half of the required number of spaces are provided for trucks (ignoring any resulting fraction). The project would provide two Code-complying standard truck loading spaces at grade on Welsh Street and Freelon Street, respectively, and two service van spaces within the garage. The two loading spaces and two van spaces would be more than sufficient to satisfy the projected demand of 0.46 spaces during the average loading hour and 0.58 spaces during the peak loading hour, and meet the *Planning Code* requirements.

### Pedestrian and Bicycle Conditions

Pedestrians destined to and from the 557 Fourth Street project for the most part would use the main entrance on Fourth Street and the secondary entrance on Welsh Street, though some would use Freelon and Zoe Streets for access. Existing pedestrian flows in the area are less than 100 pedestrians per hour, offering unconstrained movement and walking speeds. The proposed project would generate an additional 134 person trips (inbound and outbound) during the weekday PM peak hour, which would not substantially affect pedestrian operating conditions on sidewalks or at crosswalks in the project vicinity. Pedestrian flows would remain unimpeded, with very few conflicts between pedestrians.

A Citywide Bicycle Route is designated on Fifth Street, the only bicycle route in the traffic study area. The closest street with a bicycle lane is Folsom Street, which provides a 5-foot bicycle lane along the



south curb. The project is not expected to generate a noticeable increase in bicycles in the area or to adversely affect existing bicycle conditions in the area.

## Construction Impacts

Construction of the proposed project would take about 26 months. Excavation would occur during the first nine months, which would require between 20 and 80 daily truck trips for removal of excavated earth. Construction of the foundation would take place over the subsequent nine months of construction, and would generate approximately four to five daily truck trips (delivering concrete), except when the slurry wall is constructed. This activity would occur over four consecutive days, including two weekend days, and would generate approximately 150 truck trips per day. The final eight months of construction would be devoted to framing and interior work. During this stage, two to three trucks would come to the site each day. Construction truck traffic would temporarily reduce street capacity due to slower movement and larger turning radii of the large trucks, resulting in a slowing of vehicle traffic in the project vicinity. Closure of a travel lane on Fourth Street would likely be required periodically to allow pouring of concrete. It is anticipated that this would occur about twice a week during the nine-month foundation construction period. Reduction of Fourth Street from four to three lanes adjacent to the project site would temporarily restrict traffic flow which is generally heavy. Freelon Street would also be blocked three or four times during the entire construction period, each time for a few hours at a time. Traffic on Freelon is minimal, so these temporary closures would not substantially affect traffic on Freelon Street. All of the construction impacts on traffic conditions would be temporary in nature, and therefore would not be considered significant.

Following completion of the second stage of construction (foundation work), all staging of equipment and materials and all construction worker parking would take place on the project site. Prior to this, the 25 to 60 construction workers that would be on site throughout project construction would park at available off-street and on-street parking facilities in the area, resulting in a temporary increase in parking demand. The Fourth Street sidewalk would be closed throughout the construction period, with a covered pedestrian walkway provided in the existing parking lane. This would result in temporary displacement of seven or eight on-street parking spaces. The parking lanes and sidewalks on the north side of Freelon Street, the south side of Welsh Street and the west side of Zoe Street would be closed.

MUNI bus lines in the vicinity of the project operate on the west side of Fourth Street, and would not be adversely affected by project construction, other than the periodic slowing of general traffic described above.

These construction effects could be reduced by the project sponsor requiring construction truck traffic to be restricted to non-peak hours, as approved by the Department of Parking and Traffic (DPT). The project sponsor could meet with MUNI, DPT, and other responsible City agencies and other project construction managers in the area to coordinate construction activities so as to minimize construction impacts on vehicular and pedestrian traffic.

## NOTES - Transportation

<sup>1</sup> CHS Consulting Group, *557 Fourth Street Transportation Study*, February, 2000. This report is available for review at the Planning Department, 1660 Mission Street.

<sup>2</sup> Wilbur Smith Associates and CHS Consulting Group, *China Basin/South Beach Interim Year Transportation Analysis*, June 7, 1999. This report is available for review at the Planning Department, 1660 Mission Street.

<sup>3</sup> Kolve Engineering, *Transbay Redevelopment Area Plan EIR Transportation Study*, Final Report, April 1998. A copy of this report is available for review at the Planning Department, 1660 Mission Street.

<sup>4</sup> City and County of San Francisco, Department of City Planning, *Guidelines for Environmental Review: Transportation Impacts*, July 1991.

<sup>5</sup> CHS Consulting Group, *Live/Work Survey*, July 1999.

<sup>6</sup> Superdistricts are travel analysis zones established by the Metropolitan Transportation Commission (MTC). Superdistrict 1 is generally bounded by Van Ness Avenue, Townsend Street, and the San Francisco Bay.

<sup>7</sup> Intersection operating conditions are typically described by Level of Service (LOS), a ranked description of the intersection's delay based on average delay per vehicle. Levels of service range from LOS A, which indicates free-flow conditions with little or no delay, to LOS F, which indicates congested conditions with extremely long delays.

## C. HAZARDOUS MATERIALS

### Setting

Hazardous materials issues were previously identified at the project site by Phase I and Phase II Environmental Site Assessments (ESA) prepared by Innovative and Creative Environmental Solutions (ICES) in March 1998 and August 1998, respectively (a copy of these reports are available for review in Project File No. 98.953E at the Planning Department, 1660 Mission Street, San Francisco). The Phase I ESA described the land use history of the project site and area that may have involved handling, storage, or disposal of hazardous substances that could have affected the quality of soils or groundwater, and evaluated the potential presence of chemically-affected soil on the project site.

### HISTORIC USES

The project site is currently vacant and unpaved with the exception of the two-story approximately 13,000-square-foot building at the southeast corner. At the time the ESA was prepared, the center of the site was occupied by one rectangular fire-damaged building, the remains of a burnt building, and an unpaved parking lot. During the late 1880s, a bottle manufacturing plant occupied the northwest corner of the site, while the rest of the site was developed with residential structures. Stores and residences surrounded the project site. Private dwellings had also replaced the bottle plant by 1889. By 1913 a sheet metal works occupied several parcels on the north side of Freelon Street. Surrounding parcels were occupied by wagon sheds, an oil warehouse, lumber shed, and a jewelry manufacturer; numerous



parcels were vacant. In 1949, additional sheet metal shops and a warehouse were located in two large rectangular buildings that occupied the central portion of the site and extended the width of the block between Welsh and Freelon Streets. These buildings remained on the site until 1998. At present, an auto body repair business is located on the southeast corner of the project site. Neighboring uses included a metal work shop, truck repair facility, auto/truck freight depots, furnace/fittings warehouses, glazing facility, glass works, liquor wholesaler, dyeing/cleaning facility, cabinet shop, auto body shop, tag/label manufacturer, cabinet shop, various retail stores, live/work development and others.

Some of the previous surrounding uses were replaced by uses such as a post office, office building, bank, welding shop, warehouse, printer, and tag/label manufacturer. The KQED television studios and offices, which were located on the northeast corner of Fourth and Welsh Street, had been replaced by a commercial use by 1984. The project site remained essentially unchanged between 1970 and 1990, the last year of historical use examined in the ESA. The surrounding neighborhood also remained largely unchanged.

## **SUBSURFACE CONDITIONS**

Based on a geotechnical investigation, including recent and previous exploratory borings and recent test pits, the southern half of the site is underlain by about 7 feet of fill and the northern portion is underlain by approximately 10 feet of fill.<sup>1</sup> Fill materials at the site consist of loose silty and clean sands with variable amounts of concrete rubble, glass, coal, brick, and metal fragments. The materials underlying the fill vary across the site, but generally include loose natural slightly silty sand with shell fragments and minor stringers of peat, followed by soft silty clay (Bay Mud) to depths of 20 to 60 feet. The Bay Mud is underlain by dense to very dense fine-grained sands that continue to the bottom of the recent borings, drilled to 36.5 feet. In an older and deeper exploratory boring drilled at the southwest corner, the dense sands continue to a depth of about 117 feet and are followed by highly weathered and altered shale bedrock. Groundwater was encountered in the test borings and pits at 7 feet below the ground surface (bgs).

## **SOURCES OF HAZARDOUS MATERIALS**

Hazardous materials are substances with certain chemical or physical properties that may pose a present or future hazard to human health or the environment when improperly handled, stored, disposed or otherwise managed. The proposed project site contains potential sources of hazardous materials associated with former industrial activity or construction materials used in the existing building on the southeast corner of the site. These sources could include former or existing underground storage tanks (USTs), soil contamination originating from underlying fill materials, asbestos or other building materials such as lead and PCBs.

The Phase I ESA identified 177 properties within a 1-mile radius of the site that appear in one or more of 17 federal, state, and local regulatory agency databases. Of the 177 properties, 70 are located within a one-quarter-mile radius of the site, and 23 of the properties are Leaking Underground Storage Tank

(LUST) sites. Many of these properties are located downgradient (east and southeast) of the project site, and therefore, have low potential to impact the site. In addition, 75 of the properties have a no further action (NFA) status, have been de-listed, or have a "No Violations" notation, indicating that no known releases of chemicals into the environment have occurred. Six cases at five sites were identified in the ESA that may have the potential to impact the site.

## UNDERGROUND STORAGE TANKS

The Phase I and II ESA did not identify any USTs, however, in the course of removing the fire damaged structures on the site, three USTs were discovered and removed. A Certificate of Completion was issued by the San Francisco Department of Public Health on June 16, 1999.

## IDENTIFIED ON-SITE SOIL CONTAMINATION

### *Petroleum Hydrocarbons*

Gasoline contains over 200 petroleum-derived constituents.<sup>2</sup> Analysis for gasoline in a soil or groundwater matrix is commonly limited to detection of benzene, toluene, ethylbenzene and xylenes (BTEX). These four constituents, which are readily measurable with conventional analytical methods, can pose a serious threat to human health, have the potential to rapidly move through soil and groundwater and have flammable and explosive vapors.

Presently, there are no regulatory remediation ("cleanup") levels for petroleum hydrocarbons in soils. The local regulatory oversight agency usually determines the soil remediation goals on a case by case basis, depending on the particular conditions on the site. Considerations for remediation goals include the type of contaminant, future human health risks, potential for the contaminant to reach groundwater, extent of impacted soil and near-vicinity receptors.

Based on the former activities on and near the site and the presence of potential offsite sources of contaminants, the Phase I ESA concluded that there was a potential for the presence of contaminants on the site and recommended additional assessment, to include collection of groundwater samples, with testing for petroleum hydrocarbons. Accordingly, as part of a Phase II investigation, a total of three groundwater samples were collected on three separate dates in April and July 1998. The samples were taken from test borings in the center of the site, the northwest corner of the site, and northeast corner of the site. The collected samples were laboratory analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPHg); TPH as motor oil (TPHo); TPH as diesel (TPHd); benzene, toluene, ethylbenzene, and xylenes (BTEX); and methyl tertiary-butyl ether (MTBE). The lab results showed non-detectable concentrations of TPHg, TPHo, TPHd, BTEX, and MTBE.

The Phase II investigation also included the collection in July 1998 of 29 soil samples from throughout the site. Two of the samples were collected from a partially buried 5-gallon plastic bucket of soil that appeared to be contaminated with petroleum hydrocarbons. Two additional samples were taken from a depth of about 1 foot, within a radius of 5 feet from the partially buried bucket. Other soil samples from



the site were collected at depths of 2.5 feet or 6 feet below the ground surface. The soil samples were selectively analyzed for TPHd, TPHo, polynuclear aromatic compounds (PNAs), and metals listed in Title 22 of the California Code of Regulations.

The soil samples contained non-detectable concentrations of TPHd, TPHo, and PNAs. Soil in the vicinity of the bucket did not exceed the preliminary remediation goal (PRG) established by the U.S. Environmental Protection Agency (EPA) Region IX for residential development. Although the soil surrounding the bucket does not appear to have been contaminated, the Phase II ESA noted that it should be profiled during excavation and disposed of at an appropriate landfill.

## **LEAD IN SOILS**

The presence of lead in soils above natural background levels can be a common occurrence in former industrial areas. Depending on the dose, overexposure to lead can result in chronic and acute health effects manifested by seizures, paralysis, convulsions and possibly death.<sup>3</sup> Possible sources of lead include lead additives in petroleum, lead-based exterior and interior paint, or former metalworking operations. Lead concentrations can also be above natural background levels in artificial fill materials similar to those that underlie the site because these materials can originate from former buildings and industrial operations that at one time could have contained sources of lead such as piping, and construction materials. The California Code of Regulations, Title 22 considers soil with lead hazardous waste if it exceeds a total concentration of 1,000 parts per million (ppm) and a soluble concentration of 5 ppm.<sup>4</sup>

Lead concentrations up to 1,527 mg/kg were measured in the soil samples from the partially buried bucket. Five other soil samples also exceeded the lead concentration EPA preliminary remediation goal (PRG) for residential development. These samples are accordingly defined as a hazardous waste, and must be disposed of in compliance with applicable laws and regulations pertaining to the handling and disposal of hazardous waste.

## **OTHER HAZARDOUS MATERIALS**

### ***Asbestos***

Artificial fill materials originating from building debris can also contain asbestos, a fire-retardant that was used extensively as a building material until the early 1970s. Exposure to asbestos fibers can cause serious lung disease. Although no longer used as a construction material, asbestos is still present in many older existing buildings.

### ***Polychlorinated Biphenyls (PCBs)***

PCB-containing fluids can withstand high temperatures and were commonly used as insulating materials in electrical transformers or added to heat-transfer and hydraulic systems. In the 1960s, PCBs were

determined to cause adverse health effects in humans and its use was discontinued. PCBs are very stable and persist in the environment for extended periods of time.<sup>5</sup>

### **Radon**

Radon is a colorless and odorless, naturally occurring radioactive gas. It usually originates in certain types of bedrock and because it is mobile, can move through small spaces in soil and rock and seep into basements of houses and office buildings. Radon is a health concern because of links to lung cancer. The average concentration for Radon gas in California is 1.5 pico Curies per liter (Pc/L) and the U.S. Environmental Protection Agency (EPA) recommends corrective actions for concentrations over 4 Pc/L. Screening of indoor radon by the EPA/State Residential Radon Survey of California in 1989-90 indicated that out of 20 individual tests, the maximum radon measurement recorded in San Francisco was 2.1 Pc/L<sup>6</sup>.

## **REGULATORY FRAMEWORK**

### **Federal**

Hazardous materials and hazardous wastes are extensively regulated by various federal, state, regional, and local regulations, with the primary objective of protecting public health and the environment. The U.S. Environmental Protection Agency (U.S. EPA) is the lead agency for enforcing federal regulations that affect public health or the environment. The primary federal laws and regulations include the *Resource Conservation and Recovery Act* of 1976 (RCRA) and the *Hazardous and Solid Waste Amendments* enacted in 1984; the *Comprehensive Environmental Response, Compensation and Liability Act* of 1980 (CERCLA); and the *Superfund Act and Reauthorization Act* of 1986 (SARA). Federal statutes pertaining to hazardous materials and wastes are contained in the *Code of Federal Regulations* (CFR), Title 40.

### **State**

California hazardous materials laws incorporate federal standards, but are often stricter than federal laws. The primary state laws include the *California Hazardous Waste Control Law* (HWCL), the state equivalent of RCRA, and the *California Hazardous Substance Account Act*, the state equivalent of CERCLA. State hazardous materials and waste laws are contained in the *California Code of Regulations* (CCR) Titles 22 and 26. State underground storage tank laws and regulations are contained in the CCR Title 23.

The California Department of Toxic Substances Control (DTSC) enforces hazardous materials and waste regulations in California, in conjunction with the U.S. EPA. The DTSC is responsible for regulating the management of hazardous substances including the remediation of sites contaminated by hazardous substances. The Regional Water Quality Control Board (RWQCB) is authorized by the State Water Resources Control Board to enforce provisions of the *Porter - Cologne Water Quality Control Act* of



1969. The Bay Area Quality Management District (BAAQMD) may also impose specific requirements on remediation activities to protect ambient air quality from dust or other airborne contaminants.

### ***Underground Storage Tanks***

State laws also regulate underground storage tanks (USTs) containing hazardous substances. These laws are primarily found in the Health and Safety Code, and, combined with CCR Title 23, comprise the requirements of the state UST program. The laws contain requirements for UST permitting, construction, installation, leak detection monitoring, repairs and corrective actions and closures. In accordance with state laws, the San Francisco Department of Public Health implements UST regulations in the City and County of San Francisco.

## **LOCAL ORDINANCES**

Three local ordinances meet or exceed state and federal requirements for site investigations and the storage of hazardous substances. These include San Francisco Municipal Code, Article 21 (the Hazardous Materials Ordinance); and San Francisco Municipal Code, Article 22 (the Hazardous Waste Ordinance).

### ***Hazardous Materials Ordinance***

The Hazardous Materials Ordinance provides for safe handling of hazardous materials in the City. Any person or business that handles, sells, stores, or otherwise uses hazardous materials in quantities exceeding specified thresholds and for a period of greater than 30 days, is required by Article 21 to register the hazardous materials with the Department of Health.

### ***Hazardous Waste Ordinance***

The hazardous Waste Ordinance provides for safe handling of hazardous wastes in the City. The ordinance incorporates the state requirements for hazardous waste described in Section 6.5 (Hazardous Waste Management) of the California health and Safety Code as well as the accompanying regulations found in CCR Title 22.

### ***San Francisco Building Code - Chapter 36***

Construction and renovation activities must comply with Chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint. Where there is any work that may disturb or remove lead paint on the exterior of any building constructed prior to December 31, 1978, Chapter 36 requires specific notification and work standards, and identifies prohibited work methods and penalties. Chapter 36 applies to buildings or steel structures on which original construction was completed prior to 1979 (which are assumed to have lead-based paint on their surfaces), where more than ten total square feet of lead-based paint would be disturbed or removed. The project site is subject to this chapter of the Code because 60 Zoe Street was constructed in 1910. The regulating ordinance contains performance standards, including establishment of containment barriers that are at least as effective at protecting

human health and the environment as those in the most recent *Guidelines for Evaluation and Control of Lead-Based Paint Hazards* promulgated by the U.S. Department of Housing and Urban Development.

## Impacts

This section describes potential impacts related to the proposed project and legally required remediation and abatement measures that would be implemented as part of the project to reduce or eliminate potential impacts. Additional mitigation measures identified in this EIR are included in Chapter IV, Mitigation Measures. No significant hazardous materials impacts that cannot be mitigated have been identified.

### SIGNIFICANCE CRITERIA

Hazardous materials impacts would be considered significant for the purposes of this EIR if they were to create a potential public health hazard or involve the use, production or disposal of materials that pose a hazard to people or animal or plant populations in the affected area. Impacts would also be considered significant if the proposed project would interfere with emergency response plans or emergency evacuation plans.

Definition, identification, and determination of threshold levels of hazardous materials provided in the *Code of Federal Regulations* Title 40 and in the *California Code of Regulations* (CCR) Titles 22 and 26. Hazardous material means a substance or combination of substances which because of its quantity, concentration or physical, chemical or infectious characteristics may pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (Harte, 1991). Determination of "substantial" hazard or "significant" levels of hazardous materials is performed on a case-by-case basis, although generally there are regulatory guidelines for determining acceptable levels and/or public health risks associated with exposure to hazardous materials.

### IMPACT ANALYSIS

#### Lead in Soils

Lead concentrations in the other 22 soil samples were generally within background levels for soil in the San Francisco Bay Area and were below the EPA's PRG for residential development. However, samples from five test pits did exceed the PRG for lead, with concentrations up to 821 mg/kg. Given these elevated lead concentrations, a Site Mitigation Plan (SMP) was prepared by ICES in October 1998, and amended for Lot 62, in July 1999, at the corner of Zoe and Freelon Streets, and submitted to the San Francisco Department of Public Health for review and approval (a copy of the plan is available for review in Project File No. 98.953E at the Planning Department, 1660 Mission Street, San Francisco). The plan outlined remedial activities for removing the affected soil on the site. The scope contained



seven tasks related to the development of a site health and safety plan for workers on the site, dust control measures, site preparation, soil removal, soil disposal, laboratory analysis, and a soil remedial report prepared after the affected soils have been excavated and disposed in a Class I landfill which would indicate that the site is clean and usable for the proposed project.

## Other Hazardous Materials

### Asbestos

Current plans for the proposed project include demolition of the existing building. Potential exposure to asbestos, and the resulting adverse effects, is possible throughout the demolition phases, if materials that contain hazardous substances are present during operations. All identified asbestos must be removed prior to demolition of the building. Additionally, the roof that was previously not evaluated for the presence of asbestos should be sampled prior to demolition and if asbestos is identified, these materials must be abated in accordance with applicable law prior to construction. Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable Federal regulations regarding hazardous air pollutants, including asbestos. The Bay Area Quality Management District (BAAQMD) is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition or abatement work.

Notification includes the names and addresses of operations and persons responsible; description and location of the structure to be demolished/altered including size, age and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. The District randomly inspects asbestos removal operations. In addition, the District will inspect any removal operation concerning which a complaint has been received.

The local office of the State Occupational Safety and Health Administration (OSHA) must be notified of asbestos abatement to be carried out. Asbestos abatement contractors must follow state regulations contained on 8CCR1529 and 8CCR341.6 through 341.14 where is asbestos-related work involving 100 square feet or more of asbestos containing material. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento. The contractor and hauler of the material is required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. Pursuant to California law, the Department of Building Inspection (DBI) would not issue the required permit until the applicant has complied with the notice requirements described above.



These regulations and procedures, already established as a part of the permit review process, would insure that any potential impacts due to asbestos would be reduced to a less-than-significant level.

### ***Lead-Based Paint***

Demolition work that would be included in the proposed project would create exposure to paint materials containing lead, a potential hazard. Dust generating activities that include removal of walls, sanding, welding, and material disposal could produce airborne quantities of lead-laden material. These materials could expose workers and persons in close proximity, including off-site locations.

Precautions and work practices in compliance with the San Francisco Code, Chapter 36, must be initiated to appropriately handle areas identified as containing lead-based paint. The ordinance also identifies prohibited practices that may not be used in disturbance or removal of lead-based paint. Any person performing work subject to the ordinance shall make all reasonable efforts to prevent migration of lead paint contaminants beyond containment barriers during the course of the work, and any person performing regulated work shall make all reasonable efforts to remove all visible lead paint contaminants from all regulated areas of the property prior to completion of the work.

The ordinance includes notification requirements, contents of notice, and requirements for signs. Notification includes notifying bidders for the work of any paint-inspection reports verifying the presence or absence of lead-based paint in the regulated area of the proposed project. Prior to commencement of work, the responsible party (owner or contractor) must provide written notice to the Director of Building Inspection of the location of the project; the nature and approximate square footage of the painted surface being disturbed and/or removed; anticipated job start and completion dates for the work; whether the responsible party has reason to know or presume that lead-based paint is present; whether the building is residential or non-residential, owner-occupied or rental property; the approximate number of dwelling units, if any; the dates by which the responsible party has or will fulfill any tenant or adjacent property requirements; and the name, address, telephone number, and pager number of the party who will perform the work. (Further notice requirements include Sign When Contaminant is Required, Notice by Landlord, Required Notice to Tenants, Availability of Pamphlet related to protection from lead in the home, Notice by Contractor, Early Commencement of Work [by Owner, Requested by Tenant], and Notice of Lead Contaminated Dust or Soil, if applicable.) The ordinance contains provisions regarding inspection and sampling, and enforcement, and describes penalties for non-compliance with the requirements of the ordinance. These regulations and procedures required as part of the San Francisco Building Code would ensure that potential impacts due to lead-based paint would be reduced to a less-than-significant level.

### ***Materials Containing PCBs***

Improper handling or disposal of discarded fluorescent light fixtures could result in human or environmental exposure to oil containing PCBs. If certain electrical equipment and fixtures in the existing building would be reused, analysis of oil within the equipment should be performed to determine the presence of PCBs. All refuse equipment identified as containing PCBs must be appropriately tested



for PCBs and disposed properly as a hazardous waste. Large quantities of fluorescent light tubes (greater than 25) must be disposed according to hazardous waste regulations, preferably through a recycler. Adherence to these precautionary measures would reduce potential hazards associated with PCB exposure to a less-than-significant level.

### ***Construction Dewatering***

Although the construction techniques used in building the project foundation and below grade parking garage would prevent off-site groundwater from seeping into the site, the excavation of the soil would entail dewatering and discharging the water. Due to the presence of contaminated soils, there may be localized areas of groundwater contamination on the site. Contaminants could include petroleum hydrocarbons and lead. Dewatered groundwater would be discharged to the City's combined storm and sanitary sewer system in accordance with the City's Industrial Waste Ordinance (Public Works Code, Article 4.1) or to the Bay pursuant to an approval discharge permit. If standards could not be met with on-site treatment, off-site disposal by a certified waste-hauling contractor would be required. The project sponsor and SFDPH would identify the appropriate handling procedures for groundwater produced during dewatering. These measures would minimize public health exposure to hazardous materials present in the dewatering discharge and reduce potential impacts to a less-than-significant level.

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### **NOTES - HAZARDOUS MATERIALS**

<sup>1</sup> Harold Lewis & Associates, *Foundation Investigation: Proposed Commercial and Live/Work Development on Fourth, Welsh, Zoe and Freelon Streets, San Francisco, California*, May 15, 1998. This report is available for public review in Project File No. 98.953E at the Planning Department, 1660 Mission Street, fifth floor, San Francisco.

<sup>2</sup> Regional Water Quality Control Board (RWQCB), *Leaking Underground fuel Tank Field Manual* (LUFT Task Force, 1989).

<sup>3</sup> Eugene Meyer, *Chemistry of Hazardous Materials*, Second Edition, Brady, Prentice Hall Career and Technology, New Jersey, 1990.

<sup>4</sup> Analysis of the soluble concentration of lead is performed to assess the soil's ability to "leach" lead into the underlying groundwater.

<sup>5</sup> *Ibid*

<sup>6</sup> Environmental Protection Agency, *EPA's Map of Radon Zones, California*, Radon Division, Office of Radiation and Indoor Air, 1993.

## D. GROWTH INDUCEMENT

In general, a project would be considered growth-inducing if its implementation would result in substantial population increases and/or new development that might not occur if the project were not approved and implemented. The proposed project would increase the amount of live/work and retail space in the project vicinity, while displacing two small commercial businesses. These changes in use and increase in live/work and retail space in the neighborhood would not be expected to substantially alter the development patterns in the South of Market area or elsewhere in San Francisco.

With the provision of 188 live/work units and about 13,000 square feet of commercial/retail space, the project would increase the daily population on the project site by approximately 434 people. While some of these people would relocate from elsewhere in San Francisco, some project occupants could be expected to migrate from outside the City or region. However, the potential net population increase would not be substantial relative to the existing population of the City, and it would not result in a substantial concentration of population. The project site is located in an urban area, and would not necessitate or induce the extension of municipal infrastructure. In view of the above, there is no reason to believe that the project would result in additional development in the project site vicinity that would not otherwise occur.



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## IV. MITIGATION MEASURES PROPOSED TO MINIMIZE SIGNIFICANT IMPACTS OF THE PROJECT

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In the course of project planning and design, measures have been identified that would reduce or eliminate potential significant environmental impacts of the proposed project. All of these measures have been voluntarily adopted by the project sponsor or project architect and contractor, and thus are to be implemented as part of the project. Each mitigation measure and its status are discussed below. There are several items required by law that would serve to mitigate potential significant impacts; they are summarized here for informational purposes. These measures include: no use of mirrored glass on the building to reduce glare, as per City Planning Commission Resolution No. 9212; limitation of construction-related noise levels, pursuant to San Francisco Noise Ordinance (Article 29 of the San Francisco Police Code, 1972); compliance with Chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint; and observance of State and federal OSHA safety requirements related to handling and disposal of other hazardous materials, such as asbestos. Measures that are not required by legislation but would serve to mitigate potentially significant environmental impacts appear below. Mitigation measures preceded by an asterisk (\*) are from the Initial Study (see Appendix A).

### A. CULTURAL RESOURCES

- \* • Given the location and depth of the excavation proposed, and the possibility that archaeological resources could be encountered on the project site, the sponsor has agreed to retain the services of an archaeologist. The project sponsor would retain the services of a qualified archaeological consultant with documented expertise and experience in the investigation of both prehistoric/protohistoric and historic period sites in an urban setting. The archaeologist would design and carry out a pre-excavation testing program to better determine the probability of finding cultural and historical remains. The testing program would use a series of mechanical, exploratory trenches at selected locations within the project site. Any cultural materials recovered from the site would be subjected to appropriate laboratory analysis and archaeological interpretation.

If, after testing, the archaeologist determines that no further investigations or precautions are necessary to safeguard potentially significant archaeological resources, the archaeologist would submit a written report to the Environmental Review Officer (ERO), with a copy to the project sponsor. If the archaeologist determines that further investigations or precautions are necessary, he/she would consult with the ERO and they would jointly determine what additional procedures are necessary to minimize potential effects on archaeological resources.

These additional mitigation measures would be implemented by the project sponsor and might include a program of on-site monitoring of all site excavation, during which the archaeologist would record observations in a permanent log. The monitoring program, whether or not there are finds of significance, would result in a written report to be submitted first and directly to the

ERO, with a copy to the project sponsor. During the monitoring program, the project sponsor would designate one individual onsite as his/her representative. This representative would have the authority to suspend work at the site to give the archaeologist time to investigate and evaluate archaeological resources should they be encountered.

Should evidence of cultural resources of potential significance be found during the monitoring program, the archaeologist would immediately notify the ERO, and the project sponsor would halt any activities that the archaeologist and the ERO jointly determine could damage such cultural resources. Ground disturbance activities which might damage cultural resources would be suspended for a total maximum of 4 weeks over the course of construction.

After notifying the ERO, the archaeologist would prepare a written report to be submitted first and directly to the ERO, with a copy to the project sponsor, which would contain an assessment of the potential significance of the find and recommendations for what measures should be implemented to minimize potential effects on archaeological resources. Based on this report, the ERO would recommend specific mitigation measures to be implemented by the project sponsor. These additional mitigation measures might include a site security program, additional on-site investigations by the archaeologist, and/or documentation, preservation, and recovery of the cultural material.

Finally, the archaeologist would prepare a report documenting the cultural resources that were discovered, an evaluation as to their significance, and a description as to how any archaeological testing, exploration, and/or recovery program was conducted.

Copies of all draft reports prepared according to this mitigation measure would be sent first and directly to the ERO for review. Following approval by the ERO, copies of the final report would be sent to the President of the Landmarks Preservation Advisory Board and the California Archaeological Site Survey Northwest Information Center.

## B. CONSTRUCTION AIR QUALITY

- \* • The project sponsor would require the contractor(s) to sprinkle demolition sites with water during demolition, excavation, and construction activity twice daily; sprinkle unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover debris, soil, sand, or other such material being hauled on trucks; and sweep surrounding streets during demolition and construction at least once per day to reduce particulate emissions. Ordinance No. 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor would require that the contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. This mitigation would also reduce demolition-related impacts regarding lead paint chips/lead dust. The project sponsor would also be required to comply with chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint.
- \* • The project sponsor shall require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as prohibiting idling motors when equipment is not in use or when trucks are waiting in queues, and implementing specific maintenance programs to reduce emissions for equipment that would be in frequent use for much of the construction period.

## C. Transportation

### Measures That Could be Implemented by Other Agencies

- The City and County of San Francisco shall establish a one-way traffic pattern around the site to westbound for Welsh Street, eastbound for Freelon Street, and northbound for Zoe Street.



## **D. HAZARDS**

- The project sponsor's Site Mitigation Plan (SMP) shall be submitted to the Department of Public Health for review and approval prior to any site ground disturbance and approval of any site permit.
- The project sponsor shall ensure that building surveys for asbestos, PCB-containing equipment (including elevator equipment), hydraulic oils, fluorescent lights, and lead-based paint are performed prior to the start of demolition. Any hazardous materials so discovered would be abated according to federal, state, and local laws and regulations.

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## V. SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

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In accordance with Section 21100 )b)(2)(A) and 21100.1(a) of the California Environmental Quality Act (CEQA), and with Sections 15126.2(b) of the State CEQA Guidelines, the purpose of this chapter is to identify environmental impacts that could not be eliminated or reduced to an insignificant level by mitigation measures included as part of the project, or by other mitigation measures that could be implemented, as described in Chapter IV, Mitigation Measures, pages 52 through 54. This chapter is subject to final determination by the Planning Commission as part of its certification process for the EIR. The Final EIR will be revised, if necessary, to reflect the findings of the Commission.

Mitigation measures outlined in Chapter IV of this report would reduce all potentially significant project specific impacts to a less-than-significant level. The project sponsor has agreed to implement these mitigation measures in an agreement dated April 7, 2000<sup>1</sup>

The project, with mitigation, would have the following unavoidable significant effects:

- The project would contribute to traffic at the Bryant Street and Fifth Street intersection that already operates at an unacceptable level, and would contribute to future cumulative traffic at the intersections of Bryant Street and Fifth Street, Bryant Street and Third Street, and Brannan Street and Third Street, all of which would operate at the unacceptable Level of Service F.

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<sup>1</sup> This mitigation agreement form is available for public review at the San Francisco Planning Department, 1660 Mission Street, in Case File No. 98.953E.



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## **VI. ALTERNATIVES TO THE PROPOSED PROJECT**

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This chapter identifies alternatives to the proposed project, discusses environmental impacts associated with each alternative, and, where an alternative has been considered by the project sponsor in development of the project, gives the sponsor's reasons for rejection of the alternative in favor of the proposed project. Regardless of the sponsor's reasons for rejection, the Planning Commission could adopt any of the following alternatives, if feasible, and if necessary to substantially lessen or avoid a significant environmental impact, instead of approving the project as proposed.

Analysis of alternatives at different sites for private projects is not required except in very limited circumstances. Whether property is owned or can reasonably be acquired by the project sponsor has a strong bearing on the feasibility of developing a project alternative. This EIR does not include an alternate site alternative because 557 Fourth Street Associates LLC, the project sponsor, has no feasible alternative site available for the proposed project.

### **ALTERNATIVE A: NO PROJECT**

#### **Description**

This alternative would entail no change to the site, which would remain in its existing condition. The majority of the site would remain vacant and the existing two-story brick building on the southeast corner of the site would not be demolished, but would continue to be occupied by the existing auto body repair shop and sign shop. However, this alternative would not preclude future proposals for redevelopment of the project site. Given the site's location in the area in which the South of Market Plan encourages industrial, retail, and business services development, it could reasonably be expected that a subsequent development proposal would include construction of some type of commercial or mixed-use space.

#### **Impacts**

This alternative would result in no increase in vehicle travel or transit use, as would occur with implementation of the proposed project. There would be no project-specific effects on intersection conditions, transit use, parking, loading, or pedestrian or bicycle traffic. (These impacts would all be less than significant as with the project.) Intersection operations and transit operating conditions that would degrade to unacceptable levels of service by the 2015 cumulative horizon year would do so with or without the project. Under this alternative, there would be no incremental contribution from the project

site to these degraded conditions, beyond traffic and transit ridership already generated. (The incremental contributions by the project to these effects would not be cumulatively considerable.)

Other less-than-significant effects described in the Initial Study, including emissions of air pollutants, generation of noise during construction, potential discovery of subsurface cultural resources during excavation, and demolition of the existing two-story brick building on the southeast corner of the site, among other impacts, would not occur with this alternative.

This alternative was rejected by the project sponsor because it would not satisfy the sponsor's objectives of redeveloping an under-utilized site within a robust mixed-use neighborhood.

## **ALTERNATIVE B: REDUCED DEVELOPMENT**

### **Description**

This alternative would consist of development of a scaled-down project on the approximately 70,400-square-foot site bounded by Fourth, Welsh, Zoe, and Freelon Streets (i.e., the proposed project site). As with the proposed project, the Reduced Development Alternative would entail subdivision of the project site into 12 equal-sized air parcels and construction of a single three-story live/work building on each parcel. A total of 96 live/work units would be constructed, occupying approximately 109,000 square feet of floor area. An at-grade parking garage would occupy the entire site and would provide 96 private parking spaces and one off-street loading space. No retail space and no public parking would be developed under the Reduced Development Alternative. The general appearance of the alternative buildings would be similar to the proposed project buildings, though reduced in height from about 55 feet to approximately 40 to 45 feet. All Planning Code requirements would be met by this alternative.

### **Impacts**

The Reduced Development Alternative would have similar but reduced impacts as compared to the proposed project. Due to the elimination of retail space and the reduction in square footage devoted to live/work use, this alternative would result in fewer vehicle and transit trips than the proposed project. The project occupants would generate approximately 279 daily vehicle trips and 48 PM peak hour vehicle trips compared to 1,280 daily vehicle trips and 296 PM peak hour vehicle trips with the proposed project. Vehicle delays at the six study intersections would be reduced compared with the project.

In general, the Reduced Development Alternative would have less impact on traffic than the proposed project. This alternative would generate marginally smaller shadows than the proposed project, due to a reduction in height from 55 feet to approximately 40 to 45 feet. In general, the visual impacts of this alternative would be comparable to those of the proposed project, which would be less than significant. The potential impacts to cultural resources would be reduced under this alternative because it would



require substantially less excavation. Other effects described in the Initial Study for the proposed project, such as construction noise and air emissions, would be similar to those of the proposed project but somewhat reduced because of the project's reduced size and consequently reduced construction requirements. All impacts would be less than significant with implementation of the mitigation included in the proposed project.

The Reduced Development Alternative would be the environmentally superior alternative because it would have reduced impacts as compared to the proposed project. However, as noted in Chapters IV and V, the proposed project would not generate any significant environmental effects, since it would include mitigation measures to avoid potentially significant effects.

This alternative was rejected by the project sponsor because it would not satisfy the sponsor's objectives of providing increased parking facilities and additional retail space.

## **ALTERNATIVE C: LIGHT INDUSTRIAL**

### **Description**

Under this alternative, the proposed project site would be developed with a single two-story building that would contain approximately 140,000 square feet of light industrial/business services-multimedia space. An underground garage would provide a single level of private parking with approximately 130 parking spaces. The existing two-story brick building at the northwest corner of Freelon and Zoe Streets would be demolished to accommodate the new building. The general appearance of the alternative building would be more industrial in nature than the proposed project buildings. All Planning Code requirements would be met by this alternative.

### **Impacts**

In general, the Light Industrial/Business Services-Multimedia Alternative would have fewer impacts than the proposed project due to a decrease in traffic trip generation. The development would be smaller in size, resulting in about 747 daily vehicle trips, and about 68 PM peak hour vehicle trips compared to 1,280 daily vehicle trips and 296 PM peak hour trips with the proposed project. However, levels of service at the study intersections would operate at the same levels as under the proposed project. As with the project, the levels of service at the Fifth Street/Bryant Street intersection would continue to be LOS F.

This alternative would involve a single building with a more industrial appearance. Shadow effects would be reduced by the reduced building height of approximately 45 to 50 feet. However, visual impacts for both the project and this alternative would not be significant.

As with the Reduced Development Alternative, other effects described in the Initial Study for the proposed project, such as construction noise and air emissions, would be similar to those of the proposed project but somewhat reduced because of the alternative's reduced size, which would reduce the amount and duration of construction. The potential impacts to cultural resources would be reduced under this alternative because it would require less excavation than the proposed project. All impacts of the alternative would be less than significant with implementation of the mitigation included in the proposed project.

This alternative was rejected by the project sponsor because it would not satisfy the sponsor's objectives of providing quality live/work units and a suitable underground parking garage.



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## VII. EIR AUTHORS

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### EIR AUTHORS

Planning Department, City and County of San Francisco  
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### EIR CONSULTANTS

#### **During Associates**

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Doug Herring  
Lynne LeRoy

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Allen Pastron, Ph.D.

#### **Clement Designs (Graphics Design)**

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Kathy Clement  
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#### **Square One Productions (Photos)**

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San Francisco, CA 94133  
Hartmut H. Gerdes, Principal

#### **CHS Consulting Group (Transportation)**

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San Francisco, CA 94108  
Chi-Hsin Shao, Principal

## ENVIRONMENTAL CONSULTANTS *(continued)*

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Certified Meteorologist  
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### PROJECT SPONSOR

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San Francisco, CA 94108  
Joe Cassidy, Principal

### PROJECT ARCHITECT

Sternberg Benjamin Architect  
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San Francisco, CA 94107  
David Sternberg  
Leonardo Zylberberg  
Danis Morneau

### PROJECT ATTORNEY

Alice Barkley  
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San Francisco, CA 94123

## ORGANIZATIONS AND PERSONS CONSULTED

### City and County of San Francisco

Planning Department  
Fred Ridel, Planner

Municipal Railway  
James Lowe

Department of Parking and Traffic  
Jerry Robbins, Planner



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## VIII. APPENDICES

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- A. Initial Study and EIR Requirement
- B. Draft EIR Distribution List
- C. Intersection Level of Service Designations

**NOTICE THAT AN  
ENVIRONMENTAL IMPACT REPORT  
IS DETERMINED TO BE REQUIRED**

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**Date of this Notice:** September 4, 1999

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**Lead Agency:** City and County of San Francisco, Planning Department  
1660 Mission Street - 5th Floor, San Francisco, CA 94103

**Agency Contact Person:** Joy Navarrete      **Telephone:** (415) 558-6382

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**Project Title:** 98.953E: 557 Fourth Street  
**Project Sponsor:** 557 Fourth Street LLC  
**Project Contact Person:** Alice Barkley  
**Telephone:** (415) 775-0495

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**Project Address:** 557 Fourth Street, block bounded by Fourth, Welsh, Zoe, and Freelon Streets  
**Assessor's Block and Lot:** Block 3776, Lots 119 and 62  
**City and County:** San Francisco

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**Project Description:** The proposed project is the subdivision of two existing lots (Assessor's Block 3776, Lots 119 and 62) into 12 equal-sized lots and new construction of a four-story, 55-foot-tall live/work building on each parcel. A total of 188 live/work units would be constructed. A three-level underground community parking garage would span the entire site and would provide parking for about 480 cars with ingress on Welsh Street and egress on Freelon Street. The buildings would provide approximately 265,000 square feet of floor area, including approximately 227,000 square feet of live/work space, 13,000 square feet of retail space, and 25,000 square feet of circulation, mechanical and storage space, plus 204,000 square feet of parking below grade. The approximately 70,400-square-foot lot was previously occupied by four warehouse-type buildings, three of which were damaged by fire in October 1998. The three damaged buildings were demolished, and the site is vacant except for a two-story, approximately 13,000-square-foot structure on the southeast corner of the site. The project site is within the SLI (Service/Light Industrial) District and in a 50-X Height and Bulk District.

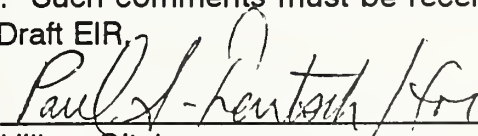
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**THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED.** This determination is based upon the criteria of the State CEQA Guidelines, Section 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and the following reasons, as documented in the Environmental Evaluation (Initial Study) for the project, which is attached.

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Deadline for Filing of an Appeal of this Determination to the Planning Commission: October 4, 1999.  
An appeal requires: (1) a letter specifying the grounds for the appeal, and (2) a \$209.00 filing fee.

The public is invited to comment on the scope of the EIR. Such comments must be received by October 4, 1999 to ensure consideration in preparing the Draft EIR.

  
Hillary Gitelman  
Environmental Review Officer



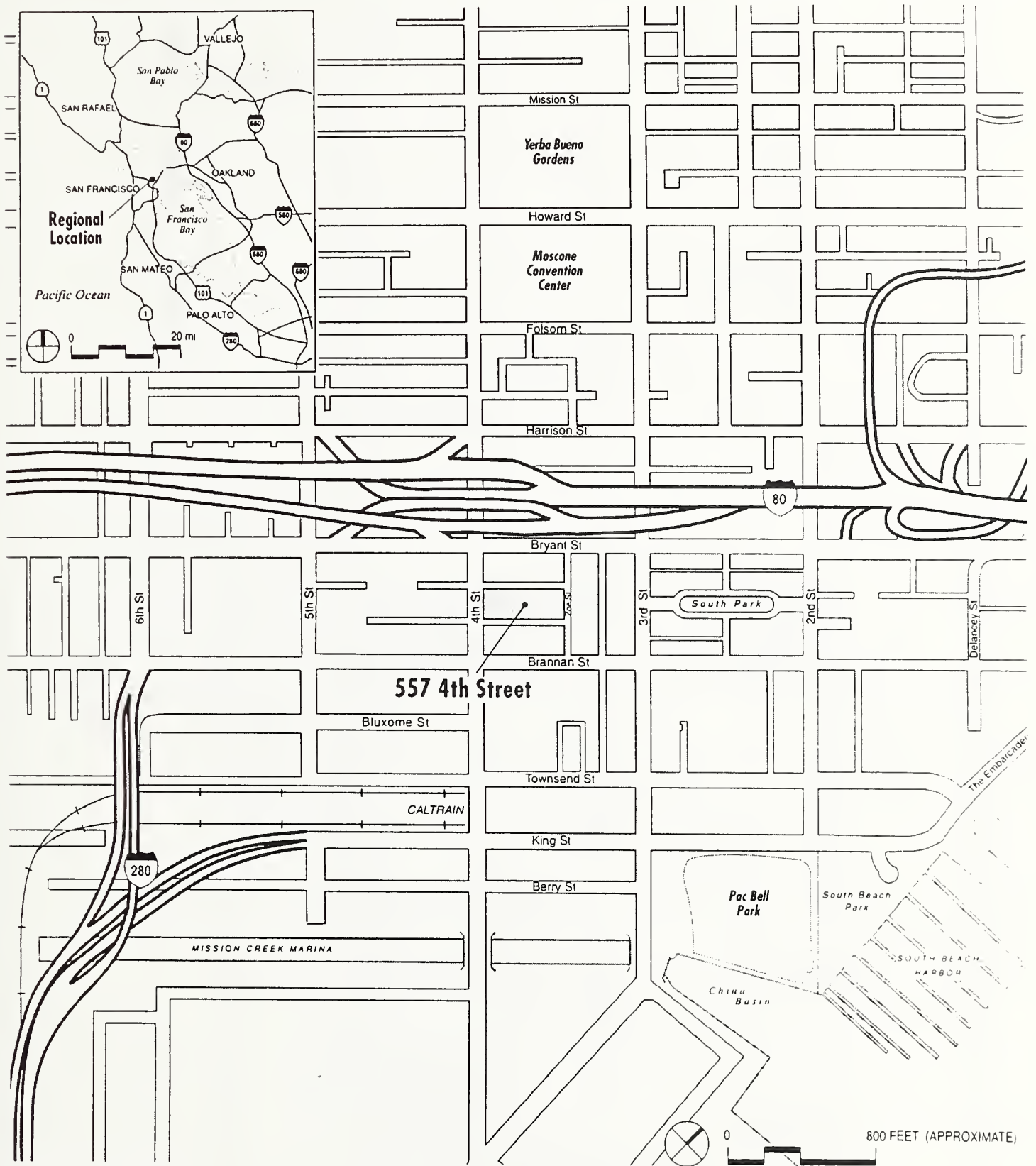
**557 FOURTH STREET  
INITIAL STUDY  
98.953E**

## **I. PROJECT DESCRIPTION**

The proposed project would entail subdivision of existing lots (Assessor's Block 3776, Lots 119 and 62) with 12 equal-sized air-parcels (i.e. above grade) and new construction of 188 live/work units and four to six ground-floor commercial spaces in 12 wood-frame buildings (one on each air parcel) on the block bounded by Fourth, Welsh, Zoe, and Freelon Streets (Figure 1, page 3). Each building would be 55 feet tall and would have four stories (Figures 2, 3, 4 and 5, pages 4, 5, 6 and 7). The 12 air-parcels would be above a three-level underground community parking garage that would occupy the entire site and would provide independently accessible parking for about 480 cars (Figures 6 and 7, pages 8 and 9). The buildings would provide approximately 265,000 square feet of floor area, including approximately 227,000 square feet of live/work space, about 13,000 square feet of retail space, 25,000 square feet of circulation, mechanical and storage space, and 204,000 square feet of parking below grade. The commercial space would be in the two buildings facing Fourth Street. Entrance to the parking garage would be on Welsh Street in the middle of the project block, and egress would be on Freelon Street. Each of the live/work units would be provided a single parking space on the bottom level of the underground garage; the remaining spaces would be available for public community-parking. Two off-street loading spaces would be provided at ground level.

Two of the proposed buildings would contain ground-floor retail/commercial space and 18 live/work units in the three upper floors (each unit contains a mezzanine), and would front on Fourth Street with commercial space also on Welsh and Freelon Streets. The remaining ten buildings would contain four floors of live/work units with mezzanines, including live/work units on the ground floor. Two of the buildings would contain the access ramps and the lobbies to the garage. Four buildings would each contain the lobby entrances to the live/work units; two of the buildings will also each contain a loading dock. (See figure 2).

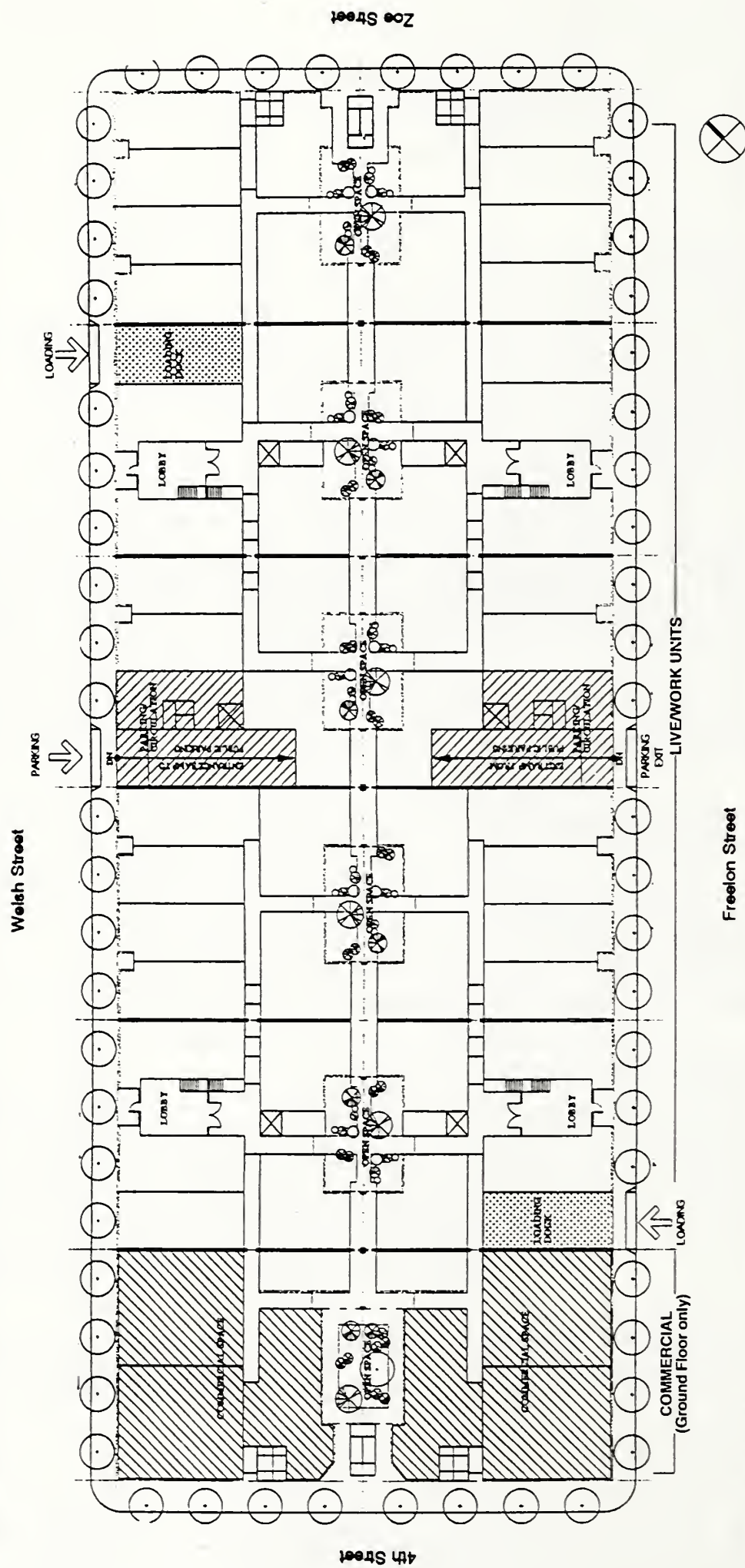
The project buildings would be inter-connected in groups of three with the center building containing a common lobby and elevator. There would be two pedestrian entrances/exits on Welsh Street and two on Freelon Street. The public access to the garages would not be in the same building as the entrance/lobbies to the live/work units. The 12 buildings would be articulated with bay windows of varying heights and proportions, and the facade would be divided into distinctive segments to reduce its scale and massing. The exterior finish of all buildings would be cement plaster.



Source: During Associates

PROJECT LOCATION FIGURE 1

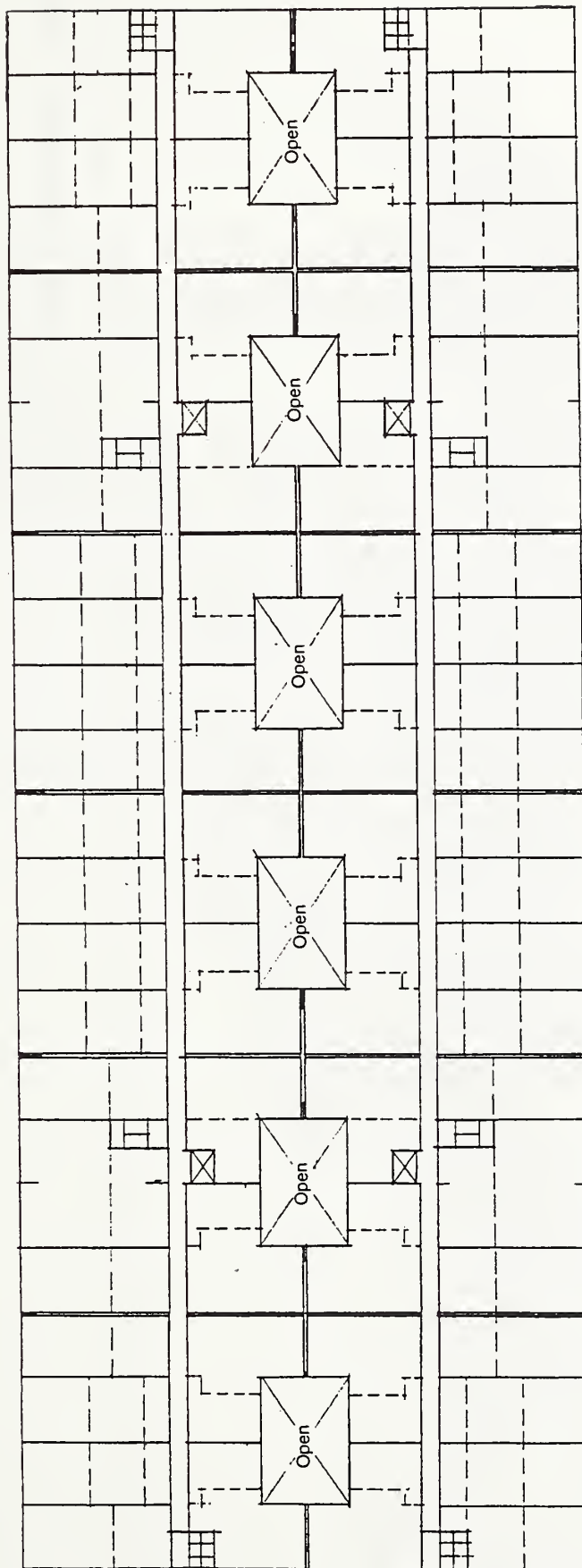




Source: Sternberg Benjamin Architects

GROUND FLOOR PLAN FIGURE 2

Welsh Street



Zoe Street

4th Street

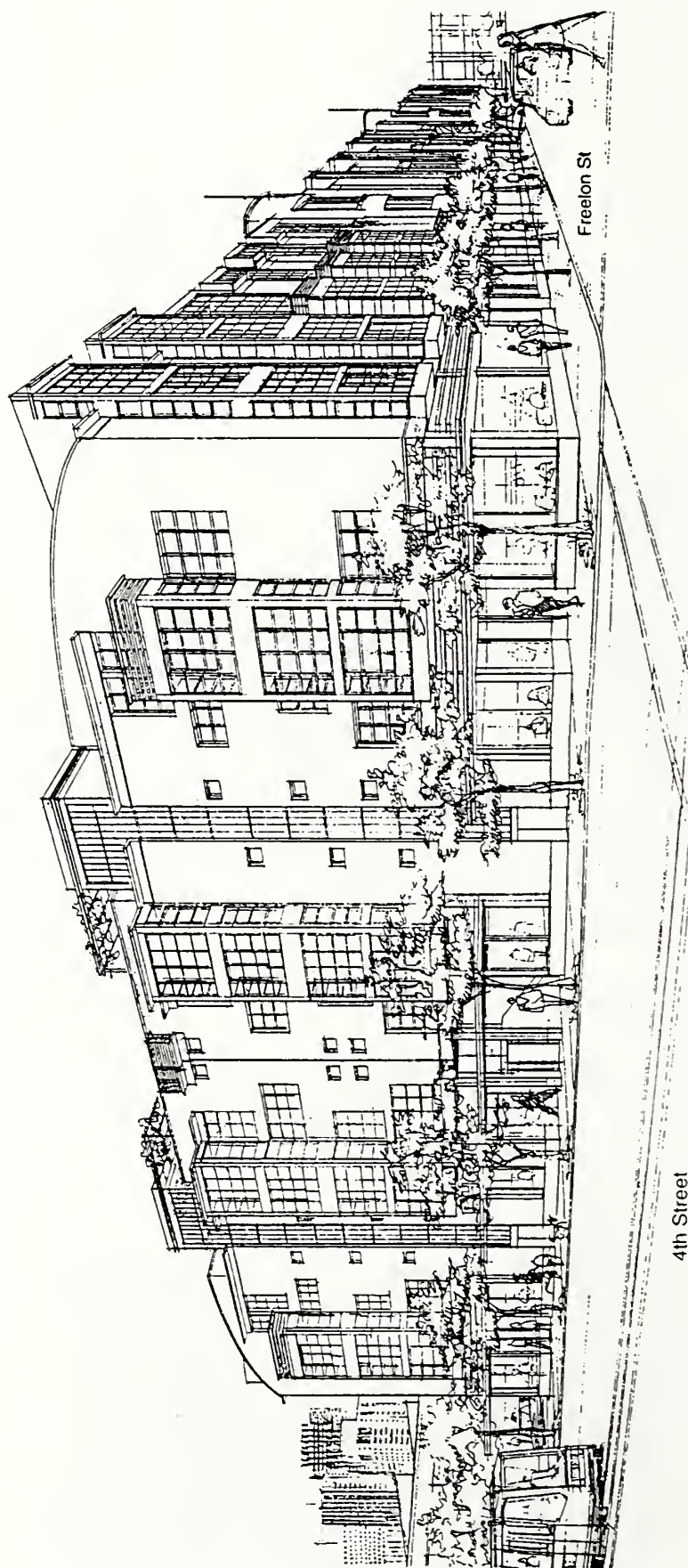
Freelon Street  
LIVE/WORK UNITS



Source: Sternberg Benjamin Architects

SECOND FLOOR PLAN FIGURE 3





Source: Sternberg Benjamin Architects

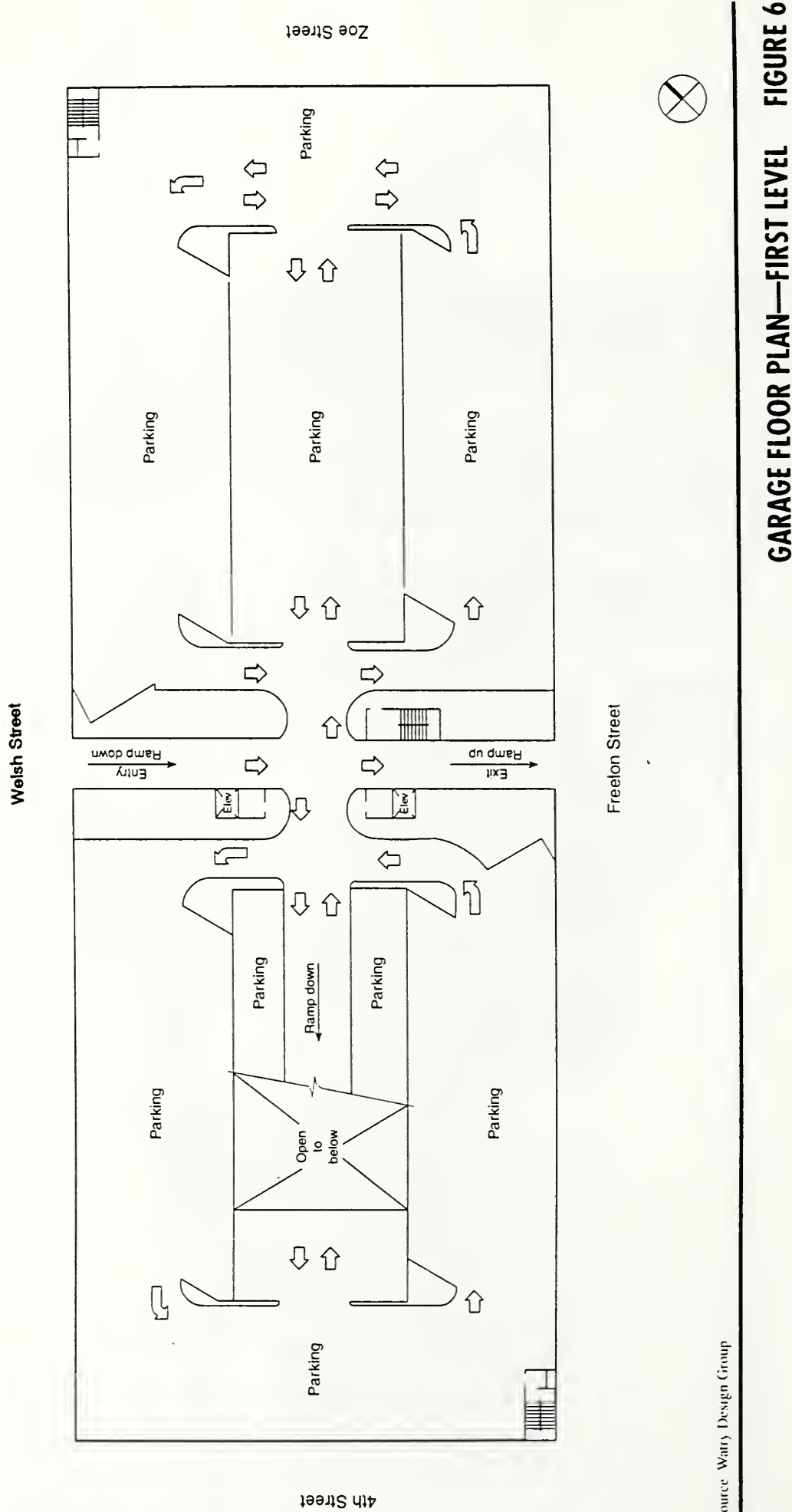
FOURTH STREET PERSPECTIVE      FIGURE 4



Source: Sternberg Benjamin Architects

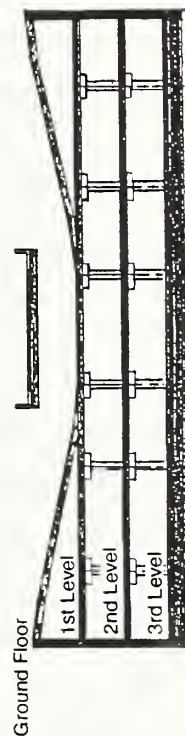
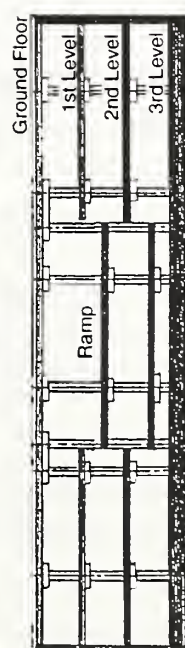
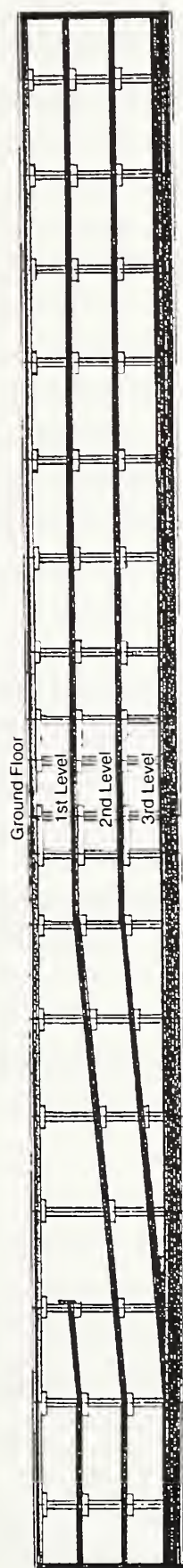
FREELON STREET PERSPECTIVE      FIGURE 5





Source: Watry Design Group

**GARAGE FLOOR PLAN—FIRST LEVEL** **FIGURE 6**





Project construction would take approximately 18 months. The project construction cost is estimated at \$20 million. The project sponsor is 557 Fourth Street LLC, and the project architect is Sternberg/Benjamin Architects.

## PROJECT SETTING

The project site is rectangular, about 440 feet long along Welsh and Freelon Streets and about 160 feet wide along Fourth and Zoe Streets. It is located in the *South of Market Area Plan*. The 70,400-square-foot lot was previously occupied by three long warehouse-type buildings that extended between Welsh and Freelon Streets, and presently with a two-story, approximately 13,000-square-foot unreinforced masonry building on the southeast corner of the site. The three warehouse structures were severely damaged by a fire in 1998 and subsequently demolished in October 1998 under an emergency order issued by the Department of Building Inspection. The debris and building pads have been removed and the site is currently vacant and graded, except for the corner building which contains a vehicle body shop and a sign shop\graphic art company.

For more than 70 years, the site was primarily occupied by a sheet metal works and a warehouse in the two large rectangular buildings that occupied the central portion of the site and extended the width of the block between Welsh and Freelon Streets. These buildings remained on the site until 1998. A vehicle body shop and a sign shop\graphic art company were located on the southeast corner of the project site at this time. Neighboring uses include a metal work shop, truck repair facility, auto/truck freight depots, furnace/fittings warehouses, glazing facility, glass works, liquor wholesaler, dyeing/cleaning facility, cabinet shop, auto body shop, tag/label manufacturer, cabinet shop, various retail stores, live/work development and other commercial/light industrial uses.

Within one block of the Assessor's Block which contains the project site, a total of 741 live /work units on 15 sites are in varying stages of review, approval, construction and/or completion.

## II. SUMMARY OF POTENTIAL ENVIRONMENTAL EFFECTS

### A. EFFECTS FOUND TO BE POTENTIALLY SIGNIFICANT

The 557 Fourth Street Project is examined in this Initial Study to identify potential effects on the environment. On the basis of this study, project-specific effects that relate to transportation have been determined to be potentially significant, and will be analyzed in an Environmental Impact Report (EIR). In addition, the EIR will provide additional discussion of land use and hazardous materials for informational purposes, although both are determined in this Initial Study to have a less-than-significant impact.

**B. EFFECTS FOUND NOT TO BE SIGNIFICANT**

The following potential effects were determined either to be less than significant or to be mitigated through measures included in the project. These items are discussed in Section III below, and require no further environmental analysis in the EIR: land use; visual quality, including light and glare; population, including housing and employment; noise; air quality, including shadow and wind; utilities/public services; biology; geology/topography; water; energy; and cultural resources.

**III. ENVIRONMENTAL EVALUATION CHECKLIST AND DISCUSSION**

With several exceptions, all items on the Initial Study Environmental Evaluation Checklist incorporated below have been checked "No," indicating that, upon evaluation, staff has determined that the proposed project could not have a significant adverse impact on the environment in the topic areas indicated. For items where the conclusion is "To be Determined," further analysis will be conducted in the EIR. Many Checklist items have been checked "Discussed," indicating that the Initial Study text includes discussion about that particular issue. For all of the items checked "No" without a discussion, the conclusions regarding potential significant adverse environmental effects are based on field observation, staff experience and expertise on similar projects, and/or standard reference material available within the Planning Department such as the Department's *Transportation Guidelines for Environmental Review*, or the California Natural Diversity Data Base and maps, published by the California Department of Fish and Game. For each Checklist item, staff considered both the individual and cumulative impacts of the proposed project.

**COMPATIBILITY WITH EXISTING ZONING AND PLANS**

	<u>N/A</u>	<u>Discussed</u>
1. Discuss any variances, special authorizations, changes proposed to the City Planning Code or Zoning Map, if applicable.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Discuss any conflicts with any other adopted environmental plans and goals of the City or Region, if applicable.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The *San Francisco Planning Code*, which incorporates by reference the City's Zoning Maps, governs permitted uses, densities, and the configuration of buildings within San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless either the proposed project conforms to the *Code*, or an exception is granted pursuant to provisions of the *Code*. The project would not seek any exceptions to the *Planning Code*.

The project site is in the SLI Zoning District, which permits live/work development, and is in a 50-X Height-Bulk District, which permits construction of live/work buildings to a height of 55 feet. The height of each new building would be about 55 feet. Section 260(b)(2)(O) of the *Planning Code* provides an additional five-foot height allowance for buildings located within a South of Market zoning district where the uppermost floor of



the building is to be occupied solely by live/work units. Therefore, the proposed project would comply with zoning requirements pertaining to height.

The SLI District is designed to protect and facilitate the expansion of existing general commercial, manufacturing, home and business service, live/work use, arts uses, light industrial activities, and small design professional office firms. Existing group housing and dwelling units are protected from demolition or conversion to nonresidential use and development of group housing and low-income affordable dwelling units are permitted as a conditional use. General office, hotels, movie theaters, nighttime entertainment, and adult entertainment uses are not permitted. The proposed project would comply with the zoning regulations for the site and would not require a zoning change.

On August 5, 1999, the Planning Commission imposed interim zoning controls for the City's industrially zoned land, for a period of 15 months or the adoption of permanent zoning controls, whichever occurs earlier. The interim zoning controls create an Industrial Protection Zone (IPZ) and Mixed Use Housing Zones within the City's industrially zoned land. Within the IPZ, new housing uses, including live/work projects, are generally not permitted. Within the Mixed Use Housing Zones, live/work and residential are principal permitted uses. On the IPZ or MUHZ Buffer Zone boundary between these two zones, new live/work or residential projects would be allowable as a Conditional Use. The proposed project is located on a block that has been designated within the proposed Mixed Use Housing Zone where new live/work and residential projects are permitted.

Environmental plans and policies are those, like the Bay Area Air Quality Plan, which directly address physical environmental issues and/or contain targets or standards which must be met in order to preserve or improve characteristics of the City's physical environment. The current proposed project would not obviously or substantially conflict with any such adopted environmental plan or policy.

The City's General Plan, which provides general policies and objectives to guide land use decisions, contains some policies which relate to physical environmental issues. The current project would not obviously or substantially conflict with any such policy. In general, potential conflicts with the General Plan are considered by decision makers independently of the environmental review process, as part of the decision whether to approve or disapprove a proposed project. Any potential conflict not identified here could be considered in that context, and would not alter the physical environmental effects of the proposed project.

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the City Planning Code to establish eight Priority Policies. These policies are: preservation and enhancement of neighborhood-serving retail uses; protection of neighborhood character; preservation and enhancement of affordable housing; discouragement of commuter automobiles; protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; maximization of earthquake preparedness; landmark and historic building preservation; and protection of open space. Prior to issuing a permit for any project which requires

an Initial Study under CEQA, and prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action which requires a finding of consistency with the General Plan, the City is required to find that the proposed project or legislation is consistent with the Priority Policies.

The Planning Commission must certify the EIR as a complete and accurate environmental document for the project prior to any approval actions being taken. Prior to issuing a permit for any project which requires an Initial Study under the California Environmental Quality Act (CEQA) or adopting any zoning ordinance or development agreement, the Planning Commission is required to find that the project complies with the requirements of Section 101.1 of the *Planning Code* (Proposition M), including consistency with the General Plan. The project sponsor will apply for building permits, demolition permit, and lot split/subdivision approval from the City and County of San Francisco. The Department of Public Works would also require a minor street encroachment permit to rebuild the curb for ingress and egress on Welsh and Freelon Streets to the proposed community parking garage. Approvals necessary for the project and the relationship of the project to *Planning Code* requirements will be described in the EIR.

## B. ENVIRONMENTAL EFFECTS

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
1. <u>Land Use</u> - Could the project:			
a. Disrupt or divide the physical arrangement of an established community?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have any substantial impact upon the existing character of the vicinity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### *intensification of residential use/change in neighborhood character*

The proposed project would entail construction of 12 four-story live/work buildings, two with ground floor commercial spaces, on a full-block parcel (one-third of a standard South of Market block), bounded by Fourth, Welsh, Zoe, and Freelon Streets. Because the project would be developed within the existing block and street configuration, and is located in a mixed-use area, it could not divide the physical arrangement of an established community.

The proposed project would result in a change in use of the project site from commercial and warehouse to live/work uses. While the Planning Department recognizes live/work development as a commercial use, the operation of live/work involves both residential and commercial aspects. The changes in land use on the sites are not considered a significant impact for a variety of reasons. Live/work is a permitted land use on the SLI District. Construction of the proposed project would introduce residential use to the project site and result in an intensification of residential activity in the project area. The proposed project would not substantially change the existing character or physical arrangement of the South of Market neighborhood because the live/work development would be generally compatible with the surrounding commercial, service, live/work,



residential and light industrial uses; and the new buildings would be an in-fill development in a dense urban area.

The project site is located in the diverse South of Market Planning District. This mixed-use area is somewhat dominated by a wide variety of commercial and office uses, but also includes live/work, residential, entertainment, warehouse, light industrial, and other uses. The project site itself is currently vacant and has been recently graded, except for an approximately 13,000-square-foot building containing a vehicle body repair shop, and a sign shop/graphic arts company.

The block to the north of the project site is dominated by commercial uses in two-story buildings fronting on Bryant Street. Several auto repair businesses are located in the block, including one that fronts onto Welsh Street. Only one other business has a frontage on Welsh Street, a daycare center for dogs. Other businesses in this block include a chair store, a print shop, a restaurant, and a four-story office building housing high-technology companies, management consultants, and real estate companies. A three-story live/work building is located across Zoe Street from the site and an adjacent three-story building also appears to be live/work. South of these two buildings is a fenced private parking lot. This block to the east of the site also contains a clothing factory, design studio, motorcycle sales/service/parts business, bar, two retail businesses, two residential duplexes, a vacant two-story building, an unidentifiable use, and a five-story live/work building.

The block immediately south of the project site hosts a public parking lot and, at the corner of Brannan and Fourth Streets, a one-story building housing a bank, restaurant, and coffee shop. Also in this block are a variety of one- and two-story buildings housing offices, artists' and design studios, clothing outlet, paratransit broker, velcro factory store, a vacant building, and a U.S. Post Office station. The majority of these uses front on Brannan Street, although two of them face onto Freelon Street. Across Brannan Street at the corner of Fourth Street is a large three-story live/work building with approximately 85 units.

To the west of the project site, Fourth Street, between Brannan and Bryant Streets, is lined predominantly with two-story commercial buildings, although a three-story residential hotel over a restaurant/bar is located at the corner of Fourth and Bryant and a three-story, 10-unit apartment building over a restaurant is at the corner of Fourth and Freelon. Other uses along Fourth Street include a third restaurant, a diving shop, women's clothing store, office building, and flower and gift shop. In addition, two large buildings are undergoing renovation at the corner of Fourth and Welsh Streets. Welsh and Freelon Streets, west of the project site, include a small concentration of residential uses. Approximately half a dozen two- and three-story apartment buildings and single-family residences are on Freelon Street, as well as a three-story live/work building. A four-story live/work building is located on Welsh Street, next to a small one-story building that contains an artist's studio. Another concentration of residential use is located to the east of the project site, in the block bounded by Brannan, Second, Bryant, and Third Streets. Known as South Park, this block features small two- and three-story buildings, many of them restored Victorians, facing a central oblong park

encircled by South Park Street. A mixture of residential and retail uses, along with numerous restaurants, are located in this block.

Other large land uses in the project vicinity include the San Francisco Tennis Club, occupying the western half of the block bounded by Fourth, Brannan, Fifth, and Bluxome Streets, and the San Francisco Newspaper Agency's fleet maintenance facility, located at the northeast corner of Fifth and Brannan Streets. The elevated I-80 freeway passes north of the project site between Harrison and Bryant Streets. Public parking is provided underneath the freeway; however, Caltrans is currently using the space to prepare for the Bay Bridge retrofit project.

### ***violation of live/work restrictions***

The Planning Department has received complaints from neighborhood organizations and individual citizens that some live/work projects are in violation of the live/work restrictions designated by the *Planning Code* – the units are either being occupied by non-artists in zoning districts where occupancy of live/work units is restricted to artists only, or are being used solely as a residence, not for any type of commercial work activity. Many of the complaints are for live/work projects in the South of Market neighborhood, where occupancy of live/work units by non-artists is permitted. In other neighborhoods, occupancy of live/work units is restricted to artists only.

While there may be live/work projects in which the occupancy restrictions are violated, it is not appropriate for an environmental review document on a proposed live/work project to assume that future occupancy of the live/work units under review would be in violation of these occupancy restrictions. Nor is there any evidence to suggest that occupancy of projects by non-artists leads to physical environmental effects substantially different than projects occupied by artists. To strengthen public awareness of the occupancy restrictions for live/work projects, the Planning Department requires that the project sponsor record a Notice of Special Restrictions (NSR) with the County Recorder for all live/work units. The NSR specifies the use restriction on the live/work units to potential buyers. For SLI zoning districts in which occupancy of live/work units is not restricted to artists, the NSR specifies that the live/work unit shall be occupied by a tenant whose primary non-residential activity in the unit are those permitted in Section 102.2 of the *Planning Code*. Through this process, potential buyers of live/work units are made aware that they will be purchasing non-traditional commercial/living units in a non-residential setting.

### ***displacement of commercial and industrial uses/land use changes***

South of Market and other City neighborhood organizations have raised the concern that constructing live/work projects in commercial or industrial zoning districts results in displacement of commercial or industrial uses by residential uses as a result of direct conversion of existing land uses and movement of commercial and industrial businesses out of these areas as a result of rising industrial land values and complaints from



new residents about nuisances (e.g., noise, odors, traffic, etc.). The conversion of warehouse/commercial uses to commercial and residential uses as a result of constructing the proposed 188 live/work units would not be significant. The project site is over 90 percent vacant. The proposed project would directly displace two existing commercial businesses (an auto body repair shop and commercial sign shop). The displaced business would likely relocate within San Francisco.

Construction of the proposed project would result in removal of about 70,400 square feet of land currently zoned for service and industrial uses, thereby decreasing the supply of land zoned for industrial uses. The San Francisco Planning Department is presently conducting a citywide land use study with an emphasis on the need for housing and the space needs for industrial businesses. As a result of the ongoing study, the Planning Commission has expanded the boundaries of Industrial Protection Zones and has proposed the creation of new mixed-use areas, including the project site, where residential and live/work would be allowed as part of the Commission's effort to balance the need for both housing and industries.

Development of the project site as live/work would remove about 70,400 square feet of industrially zoned land from the citywide supply. Overall, the City has about 91 million square feet (2,090 acres) of industrially zoned land. About one-half of that supply is considered to be constrained by other restrictions or planned development (i.e., Port of San Francisco property, Mission Bay development).

The ramifications of live/work development on industrially zoned lots in terms of cumulative displacement of businesses and jobs is very speculative. The forecast of demand for industrially zoned land in the City suggests the need to maintain the current supply of such land. However, questions about how that space can best be organized and developed in order to maximize its use are still being explored, and different approaches are being analyzed as part of the land use study. This ongoing analysis will likely inform the current policy debate regarding areas and quantities of industrially zoned land that should be retained in order to accommodate employment growth, and the balance between employment growth and housing needs.

The project site alone represents a very small portion of the City's industrially zoned land (0.040 percent of total industrially zoned land area, and 0.080 percent of unconstrained industrially zoned land area). Nonetheless, the cumulative development of industrially zoned land with housing could require some reorganization and increased development of existing industrially zoned lots in order to fully accommodate the City's forecast business needs to the year 2020. This is a planning and policy issue separate from the consideration of the physical environmental impacts of the proposed project under CEQA. To the extent that potential changes in the physical environment as a result of construction of the proposed project or cumulative live/work development can be reasonably foreseen, the Planning Department has examined those physical changes in this Initial Study, and has concluded that no significant adverse physical environment impacts would result from those physical changes.

There is also general concern that live/work development indirectly causes business flight by driving up land values in traditionally industrial/commercial areas. A recent Case Report to the Planning Commission from the Planning Department (Zoning Options for Industrial Land; April 8, 1999) documents an increase in permit activity and land and building sales prices for live/work developments in the City over the past decade. The Case Report also indicates that many industrial businesses cannot afford the same rent structure as higher-paying uses such as live/work. While live/work developments are one type of use that can afford higher land and building prices, several other such uses exist in the project area (e.g., office, retail, multi-media, and dwelling units), and there is no substantial evidence that live/work is the major factor in rising land values relative to other, larger market forces affecting land values in the City and region. There is evidence that the new San Francisco Giants Baseball Stadium is a contributing factor in rising land costs around the immediate area of the ball park.

Where there may be competition between two permitted uses in a zoning district, and one use has an economic advantage over another, any potential displacement of one use by another would be a socioeconomic effect resulting primarily from market forces. Only when the emergence of a new use has potentially significant physical adverse effects on the environment would it be appropriate to call the effects of that new use an environmental impact in the context of CEQA. The potential physical environmental impacts of the proposed live/work development (both individual and cumulative) have been analyzed in this Initial Study, and the Planning Department has not found any of those impacts to be significant.

Lastly, the issue of cumulative land use changes must be considered in the context of regional population and employment projections. The Association of Bay Area Governments (ABAG) projects that San Francisco will grow by about 7,500 residents and about 92,700 jobs between 2000 and 2020. The proposed live/work project at 557 Fourth Street would represent a small increment of this projected growth.

### ***land use conflicts***

Regarding land use conflicts with existing residential and commercial uses, live/work development is not a traditional residential use; it involves commercial as well as residential uses, the *Planning Code* does not require that it meet all residential development standards, and the physical appearance of the development tends to be more industrial/commercial than residential. Live/work development permitted on the project site is similar to uses already established in the project area, including dwelling units, live/work units, retail businesses, and commercial, service and light industrial operations. Commercial and industrial uses have coexisted with residential uses in the project area for many years. Constructing the 188 live/work units would not introduce residential use to the project area, as existing residential development, as well as other live/work units, already exist in the project area. Lastly, approval of the proposed project would require recordation of a Notice of Special Restrictions (NSR) with the County Recorder. The NSR specifies the use restrictions on



the live/work units to potential buyers, making certain they are aware that they have purchased non-traditional commercial/living units in a non-residential setting.

While complaints may still result due to the proximity of the proposed live/work development to commercial and industrial uses, prospective purchasers of live/work units at the project site would be made aware of the commercial and industrial activities adjacent to or near the site in advance of any decision to purchase or lease a unit. While conflicts between the occupants of the live/work units and adjacent or nearby commercial and industrial businesses may arise, it should be pointed out that complaints between occupants of different uses on different sites do not inherently constitute or indicate a significant land use conflict. The live/work, commercial and industrial uses are permitted uses within the SLI District. As such, all of these uses are entitled to conduct their activities. The live/work use has been considered by the Planning Code to be primarily a commercial activity with a residential component. The residential component of live/work units is non-traditional housing where occupants are aware that they are moving into a commercial or industrial neighborhood and will live in proximity to commercial/industrial activities.

Land Uses and zoning issues will be discussed in the EIR for informational purposes.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
2. <u>Visual Quality</u> - Could the project:			
a. Have a substantial, demonstrable negative aesthetic effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially degrade or obstruct any scenic view or vista now observed from public areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Generate obtrusive light or glare substantially impacting other properties?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

The mixed uses and building types in the project area are typical of other light industrial neighborhoods in San Francisco, particularly the South of Market neighborhood. The buildings near the project site are of varying facade types and heights, ranging from one to four stories. Construction of the new buildings would not result in a substantial, demonstrable negative aesthetic effect for the following reasons: (a) while at least one story taller than most nearby buildings, the new buildings would be comparable in size and scale to other buildings in the project area and would not compromise the character of nearby buildings; (b) the buildings would not be of a size or type that would result in a negative aesthetic view; (c) the project area has an industrial/commercial setting; and (d) the buildings would not block or degrade a scenic view or vista observed from a public area.

The height of the new buildings would conform to the requirements of Sections 122 and 252 of the *Planning Code*. Section 260(b)(2)(O) of the Planning Code allows up to an additional five feet above the applicable height limit (50 feet in the 50-X Height-Bulk District) when the uppermost floor of the building is to be occupied solely by live/work units located within a South of Market zoning district.

Operating the live/work units would not generate obtrusive light or glare because the proposed residential and commercial uses would not generate substantially more light or glare than do the existing residential, commercial, and light industrial uses in the neighborhood.

Visual quality effects would not be significant and will not be discussed further in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
3. <b><u>Population</u></b> - Could the project:			
a. Induce substantial growth or concentration of population?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace a large number of people (involving either housing or employment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

The addition of 188 live/work units and about 13,000 square feet of commercial/retail spaces would increase the daily population on the project site by approximately 434 people. The existing commercial uses on the site employ about 5 people. The number of future occupants is based on the average number of persons per household in the South of Market Planning District (location of the proposed project) listed in the San Francisco Planning Department October 1991 San Francisco Atlas, (i.e., 2.11 persons per household) and on a density of one retail employee per 350 square feet of retail space.<sup>1</sup> While potentially noticeable to the immediately adjacent neighborhood, this anticipated population increase would be small relative to the existing area-wide concentration of intensive commercial and residential activity and would not be significant. Physical environmental effects of this increase in population on site will be addressed in the EIR by topic, primarily in the area of transportation.

The project would not create a substantial demand for additional housing in San Francisco, nor would the project reduce the housing supply. No housing would be displaced by the project.

Population and employment effects would not be significant and will not be discussed further in the EIR.



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NOTES - Population

<sup>1</sup> City and County of San Francisco, Department of City Planning, *Guidelines for Environmental Review: Transportation Impacts*, Appendix 1, July 1991.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
4. <u>Transportation/Circulation</u> - Could the project:			
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?			<u>To be Determined</u>
b. Interfere with existing transportation systems, causing substantial alterations to circulation patterns or major traffic hazards?			<u>To be Determined</u>
c. Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity?			<u>To be Determined</u>
d. Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?			<u>To be Determined</u>

Approximately 480 parking spaces would be provided in the proposed project. The project would cause an increase in area traffic, transit, and parking demand. The EIR will discuss project effects related to traffic and circulation, including intersection operations, transit demand, and impacts on pedestrian circulation, parking, bicycles, and freight loading as well as potential traffic impacts during construction.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
5. <u>Noise</u> - Could the project:			
a. Increase substantially the ambient noise levels for adjoining areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Violate Title 24 Noise Insulation Standards, if applicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Be substantially impacted by existing noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed construction could generate noise and possibly vibration that may be considered an annoyance by occupants of nearby properties. However, due to the temporary and intermittent nature of construction noise, and the relatively high traffic noise levels already existing in the immediate area, it would not be significant. Construction noise is regulated by the San Francisco Noise Ordinance (Article 29 of the San Francisco Police Code). The Noise Ordinance requires that construction work be conducted in the following manner: 1) noise levels of construction equipment, other than impact tools, must not exceed 80 decibels (DBA; a unit of measure for sound - "A" denotes the A-weighted scale, which simulates the response of the

human ear to various frequencies of sound) at a distance of 100 feet from the source (the equipment generating the noise); 2) impact tools must have intake and exhaust mufflers that are approved by the Director of the Department of Public Works to best accomplish maximum noise reduction; and 3) if the noise from the construction work would exceed the ambient noise levels at the site property line by 5 dBA, the work must not be conducted between 8:00 PM and 7:00 AM, unless the Director of the Department of Public Works authorizes a special permit for conducting the work during that period. Because project construction noise would be temporary and intermittent and thus would not be considered significant, construction noise requires no further analysis and will not be addressed in the EIR.

The noise generated by occupancy of the proposed live/work/commercial buildings would be limited to vehicles arriving at and departing from the internal parking structure and loading zones, and would not be considered a significant impact of the proposed project. Such noise would be virtually unnoticed within the urban context of the project area. Based on published scientific acoustic studies, to produce an increase in ambient noise levels noticeable to most people in the project area, the traffic volumes in the area would need to double, which would not occur with implementation of the proposed project. Hence, operational noise requires no further analysis and will not be discussed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
6. <u>Air Quality/Climate</u> - Could the project:			
a. Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Permeate its vicinity with objectionable odors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Alter wind, moisture or temperature (including sun shading effects) so as to substantially affect public areas, or change the climate either in the community or region?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

#### Effects on Ambient Air Quality

The Bay Area Air Quality Management District (BAAQMD) operates a regional monitoring network which measures the ambient concentrations of six air pollutants (the "criteria pollutants"): ozone(O<sub>3</sub>), carbon monoxide (CO), fine particulate matter (PM<sub>10</sub>), lead (Pb), nitrogen dioxide (NO<sub>2</sub>) and sulfur dioxide (SO<sub>2</sub>). The federal Clean Air Act and the California Clean Air Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designate portions of the state where the federal or state ambient air quality standards are not met as "non-attainment areas." Because of the differences between the national and state standards, the designation of nonattainment areas is different under the federal and state legislation. On the basis of the monitoring data, the Bay Area, had been designated a "non-attainment" area with respect to the Federal O<sub>3</sub> and CO standards. In 1995, the Bay Area was redesignated by the U.S.



Environmental Protection Agency as a "maintenance area" for ozone, and in 1997, the Bay Area was redesignated to "maintenance area" for CO. However, in June of 1998, the U.S. Environmental Protection Agency, based on data from 1995-1997, reclassified the Bay Area again as non-attainment area for ozone, essentially reversing its 1995 action. The air basin is an attainment area or is unclassified for all other national ambient air quality standards. In addition, San Francisco has experienced violations of the state PM<sub>10</sub> standards.

A four-year (1994 to 1997) summary of data collected at the BAAQMD monitoring station at 10 Arkansas Street (about four blocks southwest of the project site) indicated that there were no violations of either the one-hour or eight-hour CO standards, or the standards for ozone, nitrogen dioxide, sulfur dioxide or lead. The state PM<sub>10</sub> standard was exceeded on 0 to 6 days each year during the four year period of 1994-1997.

Comparison of these data with those from other BAAQMD monitoring sites indicates that San Francisco's air quality is among the least degraded of all urbanized portions of the Bay Area. Three of the prevailing winds, west, northwest, and west-northwest, which blow off the Pacific Ocean, reduce the potential for San Francisco to receive air pollutants from elsewhere in the region, and these winds also disperse air pollutants arising in San Francisco to other parts of the Bay Area.

Data from air quality monitoring in San Francisco show that there have been violations of the state (but not federal) fine particulate standards. Prior to 1989, occasional violations of the state and federal 8-hour standard for carbon monoxide were also recorded annually. CO is a non-reactive air pollutant, the major source of which is motor vehicles. CO concentrations are generally highest during periods of peak traffic congestion. Particulate levels are relatively low near the coast and increase with distance from the coast, peaking in dry, sheltered valleys. The primary sources of particulates in San Francisco are construction and demolition, combustion of fuels for heating, and vehicle travel over paved roads.<sup>1</sup>

San Francisco, like all other sub-regions in the Bay Area, contributes to regional air quality problems, primarily O<sub>3</sub>, in other parts of the Bay Area. Ozone is not emitted directly from air pollutant sources, but is produced in the atmosphere over time and distance through a complex series of photochemical reactions involving hydrocarbons (HC) and nitrogen oxides (NO<sub>x</sub>), which are carried downwind as the photochemical reactions occur. Ozone standards are violated most often in the Santa Clara, Livermore and Diablo Valleys, because local topography and meteorological conditions favor the build-up of ozone precursors there.

In 1995, emissions from motor vehicles were the source of 70 percent of the CO, 41 percent of the Hcs, 72 percent of the PM<sub>10</sub>, 89 percent of the sulfur oxides and 53 percent of the NO<sub>x</sub> emitted in San Francisco.<sup>2</sup>

Under the California Clean Air Act, the entire San Francisco Bay Air Basin is a nonattainment area for ozone and PM<sub>10</sub>. The air basin is either attainment or unclassified for other pollutants.

The Bay Area has both a federal and state air quality plan. Both plans propose the imposition of controls on stationary sources (factories, power plants, industrial sources, etc.) and Transportation Control Measures designed to reduce emissions from automobiles.

Air quality impacts from a project, such as the subject live/work commercial and parking project, result from project construction and operation. Construction emissions, primarily dust generated by earthmoving activities and criteria air pollutants emitted by construction vehicles, would have a short-term effect on air quality. Operational emissions, generated by project-related traffic and by combustion of natural gas for building space and water heating, would continue to affect air quality throughout the lifetime of the project.

### Construction Emissions

Construction activities such as demolition, excavation and grading operations, construction vehicle traffic and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would temporarily affect local air quality. Construction activities would not involve burning of any materials and would not create objectionable odors. Grading and other construction activities would temporarily affect local air quality for a period of months, causing a temporary increase in particulate dust and other pollutants. Dust emission during excavation would increase particulate concentrations near the site. Under high winds, exceeding 12 miles per hour, localized effects including human discomfort might occur downwind from blowing dust. Construction dust is composed largely of large particles that settle out of the atmosphere more rapidly with increasing distance from the source. More of a nuisance than a hazard for most people, this dust could affect persons with respiratory diseases, as well as sensitive electronic or communications equipment. Consistent with BAAQMD CEQA Guidelines, construction-period air emissions are considered less than significant if effective control measures are implemented. The project sponsor has agreed to implement Mitigation Measure #1, page 38.

### Operations Emissions

Project operation would affect local air quality by increasing the number of vehicles on project-impacted roads and at the project site, and by introducing stationary emissions to the project site. Transportation sources would account for over 90 percent of operational project-related emissions. Stationary source emissions, generated by combustion of natural gas for building space and water heating, would be less-than-significant.

### Local Impacts

On the local scale, the project would change traffic on the local street network, changing carbon monoxide levels along roadways used by project traffic. Carbon monoxide is an odorless, colorless poisonous gas whose primary source in the Bay Area is automobiles. Concentrations of this gas are highest near intersections of major roads.



The Bay Area Air Quality Management District has identified three criteria that would require the estimation of local carbon monoxide concentrations:

- Project vehicle emissions would exceed 550 pounds per day
- Project traffic would impact intersections or roadway links operating at Level of Service (LOS) D, E or F or would cause LOS to decline to D, E or F
- Project traffic would increase traffic volumes on nearby roadways by 10 percent or more.

The URBEMIS-7G computer program was applied to project daily trip generation under winter conditions to estimate total project-related carbon monoxide emissions. The resulting emission of 642 pounds/day of carbon monoxide from project-generated vehicles exceeds the BAAQMD threshold of significance of 550 pounds/day. Project traffic would contribute to the traffic delays at two intersections currently operating at LOS D, E or F and cause the LOS to go from C to D at one intersection. Therefore, carbon monoxide concentrations at these three intersections were estimated using a CALINE-4 screening procedure.

Table 1 below shows predicted 1-hour and 8-hour averaged carbon monoxide concentrations at the three intersections that meet the BAAQMD criteria for modeling. Project traffic would increase concentrations by

Table 1  
EXISTING AND PROJECTED CURBSIDE CARBON MONOXIDE  
CONCENTRATIONS AT SELECTED INTERSECTIONS\*

Intersection	Without Project (2000)		With Project (2000)	
	1-Hour	8-Hour	1-Hour	8-Hour
Bryant St./Fourth Street	11.1	7.5	11.1	7.5
Bryant St./Fifth Street	10.4	7.0	10.4	7.0
Brannan St./Fourth St.	10.5	7.1	10.5	7.1
Most Stringent Standard	20.0	9.0	20.0	9.0

\* Calculations were made using a screening procedure contained in the *BAAQMD CEQA Guidelines*. Background concentrations of 6.6 PPM (1-hour) and 4.4 PPM (8-hour) were calculated using 1992 isopleths of carbon monoxide concentration and rollback factors developed by the Bay Area Air Quality Management District. The one-hour State standard is 20 PPM, the one-hour federal standard is 35 PPM, and the eight-hour State and federal standards are 9 PPM. Emission factors were derived from the California Air Resources Board EMFAC7F computer model (Version 1.1).

Source: Don Ballanti, Certified Consulting Meteorologist

no more than 0.1 Parts Per Million (PPM) for either intersection. Concentrations are below the applicable state/federal standards, so project impacts on local carbon monoxide concentrations would be less-than-significant.

### *Regional Impacts*

Project traffic would also have an effect on air quality outside the project vicinity. Trips to and from the project would result in air pollutant emissions over the entire Bay Area. To evaluate emissions associated with the project, the URBEMIS-7G computer program was employed. The daily increases in regional emissions from auto travel are shown in Table 2 below for reactive hydrocarbons and oxides of nitrogen (two precursors of ozone), and PM<sub>10</sub> (particulate matter, 10 micron).

Guidelines for the evaluation of project impacts issued by the Bay Area Air Quality Management District consider emission increases to be significant if the project emissions exceed 80 lbs per day for regional pollutants (HC, NO<sub>x</sub>, PM<sub>10</sub>). Project emissions shown in Table 2 are below these criteria for these pollutants, so the proposed project would have a less-than-significant impact on regional air quality. Air quality will not be discussed further in the EIR.

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Table 2  
PROJECT REGIONAL EMISSIONS IN POUNDS PER DAY\*

	Reactive Hydrocarbons	Nitrogen Oxides	PM <sub>10</sub>
Project Daily Emission	18.4	24.0	7.9
BAAQMD Threshold	80.0	80.0	80.0

\* Estimates of regional emissions generated by project traffic were made using a program called URBEMIS-7G. Inputs to the URBEMIS-7G program include trip generation rates, vehicle mix, average trip length by trip type and average speed. Trip generation rates for project land uses were provided by the project transportation consultant. Average trip lengths and vehicle mixes for the Bay Area were used. Average speed for all types of trips was assumed to be 25 MPH. The analysis assumed a year 2000 vehicle mix. The URBEMIS-7G runs assumed summertime conditions for ROG, NO<sub>x</sub> and PM<sub>10</sub>.

Source: Don Ballanti, Certified Consulting Meteorologist

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### Shadow

The proposed 557 Fourth Street buildings would place twelve 55-foot-tall buildings on a predominantly vacant site, which would incrementally increase the amount of shadow on area streets and sidewalks at certain times of the day and year. Section 295 of the *Planning Code* was adopted in response to Proposition K (passed in November 1984 in order to protect certain public open spaces from shadowing by new structures during the period between one hour after sunrise and one hour before sunset, year around). Section 295 restricts new shadow upon public spaces under the jurisdiction of the Recreation and Park Department by any structure exceeding 40 feet unless the Planning Commission finds the impact to be insignificant. To determine whether this project would conform with Section 295, a shadow fan analysis was prepared by the Planning Department, which concluded that project-generated shadow would not reach any Proposition K protected properties (a copy of this report is available for review in Project File No. 98.953E at the Planning Department, 1660 Mission Street, San Francisco). The project, however, would at times shade portions of



Fourth, Welsh, and Zoe Streets, as well as the sidewalks adjacent to the project building along these streets. The new shadows created by the project would not exceed levels commonly expected in urban areas. Hence, the EIR will not discuss potential shadowing impacts of the project on sidewalks, publicly accessible open space on private property, and parks.

*Wind* - Wind conditions partly determine pedestrian comfort on sidewalks and in other public areas. In downtown areas, tall buildings can redirect wind flows around and down to street level, resulting in increased wind speed and turbulence at street level. The proposed project, however, would be 55 feet high. According to Don Ballanti, Certified Consulting Meteorologist, the new building would not be of sufficient height to generate enough wind or otherwise substantially alter pedestrian wind levels to a degree that would require a wind tunnel analysis. The proposed project building would not cause wind levels to exceed the *Planning Code*-established comfort criteria because of the building's exposure, massing and orientation of the proposed design.<sup>3</sup> While the Fourth Street facade of the building is somewhat exposed and continuous (indicating that wind accelerations are likely), the project's mid-block location and relatively low height would suggest that any such accelerations would be moderate. Therefore, this topic will not be discussed in the EIR.

#### NOTES - Air Quality/Climate

<sup>1</sup> Bay Area Air Quality Management District, *BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans*, April 1996.

<sup>2</sup> Ibid.

<sup>3</sup> Don Ballanti, Certified Consulting Meteorologist, letter to During Associates July 9, 1999. This letter is available for review in Project File No. 99.953E at the Planning Department, 1660 Mission Street, San Francisco.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
7. <u>Utilities/Public Services</u> - Could the project:			
a. Breach published national, state or local standards relating to solid waste or litter control?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Extend a sewer trunk line with capacity to serve new development?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase demand for schools, recreation or other public facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Require major expansion of power, water, or communications facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project would increase demand for and use of public services and utilities on the site and increase water and energy consumption, but not in excess of amounts expected and provided for in this area. Hence, the proposed project's potential effect on utilities and other public services requires no further analysis and will not be discussed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
8. <b><u>Biology</u></b> - Could the project:			
a. Substantially affect a rare or endangered species of animal or plant, or the habitat of the species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially diminish habitat for fish, wildlife or plants, or interfere substantially with the movement of any resident or migratory fish or wildlife species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require removal of substantial numbers of mature, scenic trees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site has been predominantly developed since the late nineteenth century. Following demolition of fire-damaged buildings that previously occupied the site, it is currently vacant, graded, and completely devoid of vegetation and natural habitat. The project would not affect, or substantially diminish, plant or animal habitats. The project would not interfere with any resident or migratory species.

Section 143 of the *San Francisco Planning Code* would require the project sponsor to plant 22 15-gallon street trees along Welsh and Freelon Streets and eight 15-gallon trees along Fourth and Zoe Streets, unless street width or interference with public utilities make such requirements impractical, subject to Section 143(d) of the *Planning Code*. The project sponsor would provide the *Code* requirement for street trees. Therefore, no plant or animal could be affected by the project and no further analysis is required; this topic will not be included in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
9. <b><u>Geology/Topography</u></b> - Could the project:			
a. Expose people or structures to major geologic hazards (slides, subsidence, erosion and liquefaction)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Change substantially the topography or any unique geologic or physical features of the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The elevation of the project site ranges from under 1 foot above Mean Sea Level (MSL) at the southwest corner to approximately 6 feet MSL at the northeast corner.<sup>1</sup> The *San Francisco General Plan Community Safety Element* contains maps that show areas in the City subject to geologic hazards. The project site is



located in an area subject to groundshaking from earthquakes along the San Andreas and Northern Hayward Faults and other faults in the San Francisco Bay Area (Maps 2 and 3 in the Community Safety Element).

Based on a geotechnical investigation, including recent and previous exploratory borings and recent test pits, the southern half of the site is underlain by about 7 feet of fill and the northern portion is underlain by approximately 10 feet of fill.<sup>2</sup> Fill materials at the site consist of loose silty and clean sands with variable amounts of concrete rubble, glass, coal, brick, and metal fragments. The materials underlying the fill vary across the site, but generally include loose natural slightly silty sand with shell fragments and minor stringers of peat, followed by soft silty clay (Bay Mud) to depths of 20 to 60 feet. The Bay Mud is underlain by dense to very dense fine-grained sands that continue to the bottom of the recent borings, drilled to 36.5 feet. In an older and deeper exploratory boring drilled at the southwest corner, the dense sands continue to a depth of about 117 feet and are followed by highly weathered and altered shale bedrock. Groundwater was encountered in the test borings and pits at 7 feet below the ground surface (bgs).

Construction of three below-grade parking levels for the proposed project would require excavation of most of the site up to a depth of about 30 or more feet bgs. Approximately 78,000 cubic yards of soil would be removed, including the groundwater on the site. The construction of the garage and foundation, however, would employ a slurry process where the concrete would be suspended in a watery liquid that would preclude the need for dewatering during construction.<sup>3</sup> After construction of the garage and foundation, groundwater would not seep into the site.

The geotechnical investigation recommended that the proposed buildings be supported on fully waterproofed concrete mat foundations heavily reinforced with steel. They should be designed to resist the hydrostatic uplift forces associated with a design groundwater level of 6 feet bgs. The geotechnical evaluation recommends underpinning and temporary shoring in order to protect adjacent streets. Temporary shoring may consist of internally braced and/or tied-back, very stiff interlocked steel piles, soldier piles and timber lagging, or cast-in-place permanent concrete diaphragm walls.

A seismic safety study conducted in 1974 indicates that the project site is located within a zone of potential liquefaction and subsidence.<sup>4</sup> The loose sandy soils underlying the site are susceptible to liquefaction during an earthquake, which could result in differential settlement around the site. However, all of the liquefiable fill and natural soils and underlying soft Bay Mud deposits would be removed from the site during excavation, and the building foundations would be properly engineered, further reducing the probability that the project site would be affected by soil liquefaction, settlement, lateral movement, or landsliding.

The project site is also located in an area of liquefaction potential, in a Seismic Hazards Study Zone (SHSZ) designated by the California Division of Mines and Geology. For any development proposal in an area of liquefaction potential, the Department of Building Inspection (DBI) will, in its review of the building permit application, require the project sponsor to prepare a geotechnical report. The report would assess the nature and severity of the hazard(s) on the site and recommend project design and construction features that would

reduce the hazard(s). The project sponsor has provided a geotechnical investigation report prepared by a California-licensed geotechnical engineer that is on file with the Department of City Planning and available for public review as part of the project file.

The loose sandy soils underlying the site are susceptible to liquefaction during an earthquake, which could result in differential settlement around the site. However, all of the liquefiable fill and natural soils and underlying soft Bay Mud deposits would be removed from the site during excavation, and the building foundations would be properly engineered, further reducing the probability that the project site would be affected by soil liquefaction, settlement, lateral movement, or landsliding.

The seismic safety study cited above also indicates that the project site is in an area of potential inundation from tsunamis. The geotechnical consultant concluded that the potential tsunami hazard at the site is low because restrictions at the Golden Gate and intervening structures between the site and San Francisco Bay would protect the site from an advancing ocean wave entering the Bay. There is a small potential for inundation of the site by tsunamis, a potential shared by all structures in the area. However, this would not be considered a significant hazard to the project.

To ensure compliance with all San Francisco Building Code provisions regarding structural safety, when the Department of Building Inspection (DBI) reviews the geotechnical report and building plans for a proposed project, it will determine necessary engineering and design features for the project to reduce potential damage to structures from groundshaking and liquefaction. Therefore, potential damage to structures from geologic hazards on a project site would be mitigated through the DBI requirement for a geotechnical report and review of the building permit application pursuant to its implementation of the Building Code. No further analysis of geology and seismicity is required in the EIR.

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#### NOTES - Geology/Topography

<sup>1</sup> Although Fourth Street runs in a northwest-southeast direction, for purposes of this document, it is assumed to run east-west, and all references to direction are reported accordingly.

<sup>2</sup> Harold Lewis & Associates, *Foundation Investigation: Proposed Commercial and Live/Work Development on Fourth, Welsh, Zoe and Freelon Streets, San Francisco, California*, May 15, 1998. This report is available for public review in Project File No. 98.953E at the Planning Department, 1660 Mission Street, fifth floor, San Francisco.

<sup>3</sup> Ed Jacobson, CASE construction, letter to During Associates, July 7, 1999. This letter is available for public review in Project File No. 98.953E at the Planning Department, 1660 Mission Street, fifth floor, San Francisco.

<sup>4</sup> John A. Blume and Associates, *San Francisco Seismic Safety Investigation Report*, June 1974.



	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
10. <u>Water</u> - Could the project:			
a. Substantially degrade water quality, or contaminate a public water supply?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially degrade or deplete ground water resources, or interfere substantially with ground water recharge?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Cause substantial flooding, erosion or siltation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As noted above, the depth to groundwater at the site appears to range between approximately 7 and 19 feet below the site surface and may be less during years of exceptionally high precipitation. Site dewatering is expected to be required during excavation. Any groundwater encountered during construction of the proposed project would be subject to requirements of the City's Industrial Waste Ordinance (Ordinance Number 199-77), requiring that groundwater meet specified water quality standards before it may be discharged into the sewer system. The Bureau of Systems Planning, Environment and Compliance of the San Francisco Public Utilities Commission must be notified of projects necessitating dewatering, and may require groundwater analysis before discharge.

Although the project site is currently vacant and graded, it was recently largely covered by impervious surfaces, including buildings and pavement. Following implementation of the project, the site would be entirely covered with impervious surfaces. Site runoff would continue to drain into the City's combined sanitary and storm drainage system. In light of the above, the project would not result in a significant effect related to water, and no further analysis of hydrology and water quality is required in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
11. <u>Energy/Natural Resources</u> - Could the project:			
a. Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have a substantial effect on the potential use, extraction, or depletion of a natural resource?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

New buildings in San Francisco are required to conform to energy conservation standards specified by Title 24 of the California Code of Regulations. Documentation showing compliance with these standards is submitted with the application for the building permit. Title 24 is enforced by the Department of Building Inspection; and thus, no further analysis of energy is required in the EIR.

Since there would be no substantial effect on energy from the project, energy impacts will not be analyzed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
12. <b><u>Hazards</u></b> - Could the project:			
a. Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Interfere with emergency response plans or emergency evacuation plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Create a potentially substantial fire hazard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Phase I and Phase II Environmental Site Assessments (ESA) were prepared for the project site by Innovative and Creative Environmental Solutions (ICES) in March 1998 and August 1998, respectively (a copy of these reports are available for review in Project File No. 98.953E at the Planning Department, 1660 Mission Street, San Francisco). The potential for effects of the hazardous materials on the site will be discussed in the EIR for informational purposes.

*fire safety*

San Francisco ensures fire safety primarily through provisions of the Building Code and the Fire Code. The final building plans for any new or modified office building project is reviewed by the San Francisco Fire Department (as well as the Department of Building Inspection) in order to ensure conformance with these provisions. The proposed project would conform to these standards, which would include sprinkler systems throughout the building. In this way, potential fire hazards (including those associated with hydrant water pressure and emergency access) would be mitigated during the permit review process. Therefore, fire safety require no further analysis and will not be discussed in the EIR.

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
13. <b><u>Cultural</u></b> - Could the project:			
a. Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community, ethnic or social group; or a paleontological site except as a part of a scientific study?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with established recreational, educational, religious or scientific uses of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with the preservation of buildings subject to the provisions of Article 10 or Article 11 of the City Planning Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



A cultural resources evaluation of the project site was completed by an independent consultant and is summarized here.<sup>1</sup> In its natural state, the project site was situated at the junction of the soggy marshlands bordering the original shoreline of Mission Bay and the brush-covered, undulating sand hills that characterized much of the South of Market region. Elevations on the site ranged between sea level and a maximum of 5 to 8 feet above sea level. Mid-19th century maps indicate that the eastern part of the project site consisted of dry land, while the western half was probably soggy, at least periodically. Although very little archival information exists regarding specific types of native vegetation on the project site, it was in all likelihood similar to the vegetation found throughout most of the northern San Francisco peninsula, mainly grasses, scrub brush, and occasional stands of willows and oak trees.

The project site is situated in what was, prior to the arrival of the first Europeans, the northwestern portion of the territory occupied by the Costanoan people, a Native American group also referred to in anthropological literature as the Ohlone. The project site's direct proximity to the marshes bordering the original shoreline of Mission Bay make it likely that it was once the site an encampment for aboriginal hunters and gatherers. Deeply buried, previously unrecorded prehistoric sites have been recently discovered in the South of Market area in recent years, revealing that archaeological sites may still be found in highly disturbed urban areas. An assessment of the characteristics of these archaeological sites and their proximity to the shoreline of Yerba Buena Cove and the marshes bordering Mission Bay suggests that similar prehistoric/protohistoric (up to 1775 A.D.) archaeological deposits may exist within or adjacent to the proposed project site.

It is unlikely that there was any regular activity on the project site or its immediate vicinity during the Spanish, Mexican Periods or Early American eras (1776-1848). The Mission Dolores and the Presidio, the principal centers of activity, were located at a considerable distance from the site, and the gradual growth of the settlement of Yerba Buena (later renamed San Francisco) was also quite removed from the project site. There is no evidence to suggest that any cultural artifacts associated with activities at Mission Dolores, the Presidio, or Yerba Buena were ever deposited within the confines of the project site. Throughout the entirety of the Early Historic Period, the project area remained in a completely natural state.

The first settlement and development in the South of Market region in which the project site is located occurred as a result of the Gold Rush (1849 -1857). The first notable development took place early on in "Happy Valley," near the present-day intersection of First and Mission Streets and approximately three-fourths of a mile from the project site. It consisted of an encampment, initially of tents and later of frame houses, of adventurers preparing to travel to the gold fields. Increasing development took place during the Gold Rush era in Happy Valley and nearby Rincon Point, with creation of numerous small iron foundries establishing San Francisco's first industrial and shipbuilding district. The project site remained undeveloped during the early years of this period. The closest documented development was a number of small residential structures located immediately northeast of the project site, on the east side of Third Street, about midway between

Bryant and Brannan Streets. It wasn't until the mid-1850s that any development took place on the project site, when about a dozen structures appeared, most likely small wood-frame residences.

By 1859, Brannan Street was a planked thoroughfare extending at least three or four blocks to the west of Fifth Street. However, the as-yet unreclaimed marshes along the Mission Bay shoreline remained near the western edge of the project site. Welsh, Zoe, and Freelon Streets had not yet been delineated or constructed. During the 1850s, 1860s, and 1870s, massive grading and filling operations took place throughout the South of Market area to level the region's many sand hills and to reclaim land from the waters of Mission Bay to accommodate the rapid commercial and industrial expansion that was occurring in this part of the city. These activities took place on the project site during the mid- to late-1860s.

Development of the project site was particularly spurred by the nearby construction in 1865 of Long Bridge, which spanned the shallow waters of Mission Bay and connected the South of Market area with the emerging industrial district around Potrero Point. Completion of this important link not only facilitated development of the Potrero District, but also resulted in an intensive expansion in the 1870s of the South of Market area west of Sixth Street, which in turn led to intensive development of the project block, including the project site. By the later 1870s, the site was fully developed and the four streets bordering the property were open and fully graded. At this time the efforts to reclaim Mission Bay were well under way, and the shoreline of the rapidly diminishing bay was at least one-quarter mile from the project site.

By the close of the 19th century, the site was occupied by more than two dozen tightly clustered two- and three-story wood-frame buildings, most of which were dwellings. In addition, there were two corner saloons (at the intersections of Freelon and Fourth Streets and Zoe and Freelon Streets, respectively) and a druggist. The site remained residential in character until the 1906 earthquake, when the accompanying fire destroyed virtually all of the structures in the area.

Rebuilding proceeded slowly, and by 1913 about half the site remained vacant. The redevelopment that had occurred consisted of a mix of residential and commercial uses housed in one- and two-story wood buildings. It wasn't until the early 1950s that the site began assuming the character that it retained until a 1998 fire destroyed the buildings on the site and they were subsequently razed.

In summary, the body of available historical and archaeological evidence suggests that there is a potential for encountering prehistoric/protohistoric archaeological resources at the site. There is little likelihood of recovering cultural resources from the Spanish/Mexican or Early American periods. However, by the mid-1850s (the Later California Gold Rush Period), a number of structures had been erected within the eastern half of the project site. It is possible that cultural resources from this era were deposited within the



site. If archaeological resources from this period were to be encountered on the site, they would be historically and/or archaeologically significant.

Construction of three below-grade parking levels for the proposed project would require excavation of approximately 78,000 cubic yards from the site. Given the possible presence of prehistoric/protohistoric artifacts within the confines of the site, a program of pre-construction archaeological testing and evaluation is recommended to determine the presence or absence of subsurface cultural resources of significance. With implementation of Mitigation Measure 2, page 38, the project's potential impact on subsurface cultural resources would be reduced to a level of insignificance. Archaeological resources, therefore, require no further analysis and will not be included in the EIR.

The potential of the proposed project to affect historic and architectural resources of significance would be limited to its potential effect on adjacent properties. Buildings in the immediate vicinity of the project site were surveyed between 1974 and 1976 as part of a City-sponsored city-wide inventory of architecturally significant buildings. The inventory assessed the architectural significance of 10,000 surveyed structures from the standpoint of overall design and particular design features. Both contemporary and older buildings were included and each building was numerically rated according to its overall architectural significance. The ratings ranged from a low of "0" to a high of "5". Factors considered included architectural significance, urban design context, and overall environmental significance. No building adjacent to the project site was listed in the 1976 *Citywide Architectural Survey*. The project is also in the *South of Market Area Plan*, but the existing buildings are not rated. Further, no building near the project site is designated as a City Landmark, listed on the National Register of Historic Places, or subject to the provisions of Article 10 (Preservation of Historical, Architectural and Aesthetic Landmarks) or Article 11 (Preservation of Buildings and Districts of Architectural, Historical and Aesthetic Importance in the C-3 Districts) of the *Planning Code*. The two-story brick building on Lot 62 (64 Zoe Street) is also listed in the *Unreinforced Masonry Buildings (UMB) Survey*, but is not rated. Therefore, the proposed project would not have a significant impact on architectural or historical resources.

Since the project area does not have an established recreational, educational, religious or scientific use, the proposed project would not conflict with these uses. Hence, no further analysis of cultural resources will be discussed in the EIR.

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#### NOTES - Cultural

<sup>1</sup> Allen G. Pastron, PhD., *Archival Cultural Resources Evaluation of the Proposed 557 Fourth Street Mixed-Use Development Project, San Francisco, California*, February, 1999. This report is available for public review in Project File No. 98.953E at the Planning Department, 1660 Mission Street, San Francisco, CA.

Yes      No      Discussed

### C. OTHER

Require approval and/or permits from City Departments other than the Planning Department or Department of Building Inspection or from Regional, State or Federal Agencies?

☐      ☒      ☒

As discussed above, in addition to building permits from the Department of Building Inspection, the proposed project would require approval from the City Planning Commission. Prior to authorizing the proposed project, the Planning Commission is required to find that the proposed project is consistent with the Priority Policies listed in Section 101.1 of the *Planning Code* (Proposition M).

### D. MITIGATION MEASURES PROPOSED AS PART OF THE PROJECT:

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Discussed</u>
1. Could the project have significant effects if mitigation measures are not included in the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Are all mitigation measures necessary to eliminate significant effects included in the project?	<b>To Be Determined</b>			

The following mitigation measures are related to topics determined to require no further analysis in the EIR. The EIR will contain a mitigation chapter describing these measures and also include other measures which would be, or could be, adopted to reduce potential adverse effects of the project identified in the EIR.

The project sponsor has agreed to implement the following:

1. Construction Air Quality: The project sponsor would require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions for equipment that would be in frequent use for much of the construction period.

2. Cultural Resources: Given the location and depth of the excavation proposed, and the possibility that archaeological resources could be encountered on the project site, the sponsor has agreed to retain the services of an archaeologist. The project sponsor would retain the services of a qualified archaeological consultant with documented expertise and experience in the investigation of both prehistoric/protohistoric and historic period sites in an urban setting. The archaeologist would design and carry out a pre-excavation



testing program to better determine the probability of finding cultural and historical remains. The testing program would use a series of mechanical, exploratory trenches at selected locations within the project site. Any cultural materials recovered from the site would be subjected to appropriate laboratory analysis and archaeological interpretation.

If, after testing, the archaeologist determines that no further investigations or precautions are necessary to safeguard potentially significant archaeological resources, the archaeologist would submit a written report to the Environmental Review Officer (ERO), with a copy to the project sponsor. If the archaeologist determines that further investigations or precautions are necessary, he/she would consult with the ERO and they would jointly determine what additional procedures are necessary to minimize potential effects on archaeological resources.

These additional mitigation measures would be implemented by the project sponsor and might include a program of on-site monitoring of all site excavation, during which the archaeologist would record observations in a permanent log. The monitoring program, whether or not there are finds of significance, would result in a written report to be submitted first and directly to the ERO, with a copy to the project sponsor. During the monitoring program, the project sponsor would designate one individual onsite as his/her representative. This representative would have the authority to suspend work at the site to give the archaeologist time to investigate and evaluate archaeological resources should they be encountered.

Should evidence of cultural resources of potential significance be found during the monitoring program, the archaeologist would immediately notify the ERO, and the project sponsor would halt any activities that the archaeologist and the ERO jointly determine could damage such cultural resources. Ground disturbance activities which might damage cultural resources would be suspended for a total maximum of 4 weeks over the course of construction.

After notifying the ERO, the archaeologist would prepare a written report to be submitted first and directly to the ERO, with a copy to the project sponsor, which would contain an assessment of the potential significance of the find and recommendations for what measures should be implemented to minimize potential effects on archaeological resources. Based on this report, the ERO would recommend specific mitigation measures to be implemented by the project sponsor. These additional mitigation measures might include a site security program, additional on-site investigations by the archaeologist, and/or documentation, preservation, and recovery of the cultural material.

Finally, the archaeologist would prepare a report documenting the cultural resources that were discovered, an evaluation as to their significance, and a description as to how any archaeological testing, exploration, and/or recovery program was conducted.

Copies of all draft reports prepared according to this mitigation measure would be sent first and directly to the ERO for review. Following approval by the ERO, copies of the final report would be sent to the President of the Landmarks Preservation Advisory Board and the California Archaeological Site Survey Northwest

Information Center. The Major Environmental Analysis Section of the Planning Department shall receive three copies of the final archaeological report.

#### E. ALTERNATIVES

Alternatives to the proposed project will be defined further and described in the EIR. At a minimum, alternatives analyzed will include the following:

1. A No Project Alternative, in which the site would remain in its existing condition.
2. A lesser development alternative in which fewer live/work units on the site would be proposed.
3. A Light Industrial/Business Services use alternative, in which a two-story building would be constructed to house light industrial/business services (multi media) uses.

#### F. MANDATORY FINDINGS OF SIGNIFICANCE

	<u>Yes</u>	<u>No</u>	<u>Discussed</u>
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or pre-history?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.)	To Be Determined		
4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?	To Be Determined		

The project would add approximately 188 live/work units, 13,000 square feet of retail space, a 480-vehicle parking garage, and would have transportation and related impacts that could be potentially significant. The EIR will consider and evaluate these issues and impacts.



G. ON THE BASIS OF THIS INITIAL STUDY

- ☐ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.
- ☐ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.
- ☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.



HILLARY E. GITELMAN

Environmental Review Officer

for

Gerald G. Green

Director of Planning

Date: September 3, 1999

## APPENDIX B

### DRAFT EIR DISTRIBUTION LIST

#### A. DRAFT EIR DISTRIBUTION LIST

##### FEDERAL AND STATE AGENCIES

California Dept. of Transportation  
Office of Transportation Planning-B  
P.O. Box 23660  
Oakland, CA 94623-0660  
Attn: Nandini N Shridhar

Northwest Information Center  
Dept. of Anthropology  
Sonoma State University  
Rohnert Park, CA 94928  
Attn: Christian Gerike

State Office of Intergovernmental Mgmt.  
State Clearinghouse  
1400 10th St.  
Sacramento, CA 95814

##### REGIONAL AGENCY

Craig Goldblatt  
Metropolitan Transportation Commission  
101 Eighth St.  
Oakland, CA 94607

##### CITY AND COUNTY OF SAN FRANCISCO

Landmarks Preservation Advisory Board  
1660 Mission St., 5th Flr.  
San Francisco, CA 94103  
Attn: Andrea Green

San Francisco Planning Commission  
1660 Mission St.  
San Francisco, CA 94103  
Anita Theoharis, President  
Beverly Mills, Vice President  
Linda Richardson  
Lawrence B. Martin  
Beverly Mills  
Dennis A Antenore  
Cynthia Joe  
Hector Chinchilla  
Linda Avery, Secretary

Department of Building Inspection  
1660 Mission Street  
San Francisco, CA 94103  
Attn: Frank Chiu, Director

Mayor's Office of Community Development  
25 Van Ness Ave., Suite 700  
San Francisco, CA 94102  
Attn: Pamela David, Director

Marcia Rosen, Director  
Mayor's Office of Housing  
25 Van Ness Ave. #600  
San Francisco, CA 94102

Maria Ayerdi  
Mayor's Office of Economic Development  
City Hall, Room 448  
1 Dr. Carlton B. Goodlett Place  
San Francisco, CA 94102-4689

Public Utilities Commission  
1155 Market Street  
San Francisco, CA 94102  
Attn: Anson B. Moran, General Manager

Police Department  
Planning Division Hall of Justice  
850 Bryant Street, Room 500  
San Francisco, CA 94103  
Attn: Capt. Timothy Hettrich

San Francisco Department of Public Works  
Bureau of Street Use and Mapping  
875 Stevenson Street, Room 465  
San Francisco, CA 94103  
Attn: Barbara Moy

San Francisco Department of Parking & Traffic  
Traffic Engineering Division  
25 Van Ness Avenue  
San Francisco, CA 94102  
Attn: Bond M. Yee

San Francisco Fire Department  
Division of Planning & Research  
698 Second Street  
San Francisco, CA 94107  
Attn: Lorrie Kalos, Asst. Deputy Chief

San Francisco Municipal Railway  
MUNI Planning Division  
949 Presidio Avenue, Room 204  
San Francisco, CA 94115  
Attn: Peter Straus



Recreation & Park Department  
McLaren Lodge, Golden Gate Park  
Fell and Stanyan Streets  
San Francisco, CA 94117  
Attn: Deborah Learner

San Francisco Real Estate Department  
25 Van Ness Avenue, 4th floor  
San Francisco, CA 94102  
Attn: Anthony Delucchi, Director of Property

## LIBRARIES

Stanford University Libraries  
Jonsson Library of Government  
Documents  
State & Local Documents Division  
Stanford, CA 94305

Government Publications Department  
San Francisco State University  
1630 Holloway Avenue  
San Francisco, CA 94132

Hastings College of the Law - Library  
200 McAllister Street  
San Francisco, CA 94102-4978

Institute of Government Studies  
109 Moses Hall  
University of California  
Berkeley, CA 94720

Kate Wingerson (3 copies)  
Document Library  
City Library - Civic Ctr.  
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2660 Newhall Street, #116  
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Oakland, CA 94604-2050  
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Association of Bay Area Governments  
101 8th Street  
Oakland, CA 94607  
Attn: Jean Pederson

Regional Water Quality Control Board, SF Bay  
Region  
1515 Clay St., Ste. 1400  
Oakland, CA 94612  
Attn: Judy Huang

Bay Area Air Quality Management  
District  
939 Ellis Street  
San Francisco, CA 94109  
Attn: Joseph Steinberger

San Francisco Redevelopment Agency  
770 Golden Gate Ave.  
San Francisco, CA 94102  
Patsy R. Oswald, Secretary  
Darshan H. Singh  
Leroy King  
James Morales, Executive Director  
Manuel A. Rosales  
Lynette Sweet  
Benny Y. Yee, President  
Mark Dunlop, Vice President  
Neli Palma

Bureau of Energy Conservation  
Hetch Hetchy Water & Power  
1155 Market Street, 4th Floor  
San Francisco, CA 94103  
Attn: John Deakin, Director

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San Francisco, CA 94102  
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P.O. Box 6149  
San Francisco, CA 94101

San Francisco Bay Guardian  
520 Hampshire St.  
San Francisco, CA 94110  
Attn: Gabe Roth, City Editor

San Francisco Business Times  
275 Battery Street  
Suite 940  
San Francisco, CA 94111  
Attn: Tim Turner

San Francisco Chronicle  
925 Mission Street  
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Tenants in the project area, approximately 50 parties, were sent notices of availability of the Draft EIR and Draft EIR public hearing. A complete copy of the distribution listing is available in the Planning Department office at 1660 Mission Street, as part of File No 98.953E.

## APPENDIX C: INTERSECTION LEVEL OF SERVICE DESIGNATIONS

Existing and future traffic conditions at signalized intersections within the primary study area have been evaluated using the TRAF-NETSIM Traffic Simulation Model. Conditions at signalized intersections in the secondary study area have been evaluated using the *1985 Highway Capacity Manual* (Transportation Research Board, 1985) operations methodology. Both methodologies use the concept of Level of Service (LOS), which, for signalized intersections, is defined in terms of delay, or waiting time at a signal. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. Intersection LOS, determined according to the vehicle delay in seconds per vehicle, range from LOS A (very low delay) to LOS F (forced flow). Table C-1 (page A.46) provides more detailed descriptions of the six LOS, A through F, for signalized intersections using the *1985 Highway Capacity Manual* method. The TRAF-NETSIM simulation calculates LOS in much the same way, with similar results, but refines the analysis based on signal progression along streets, such as the Embarcadero, and based on spill-back, when queues from one intersection extend back to a previous intersection.

In the past, for planning applications, the City of San Francisco has used a slightly different methodology than the TRAF-NETSIM or *1985 Highway Capacity Manual* to analyze operations at signalized intersections. That method, known as the *Critical Lane Analysis* (Transportation Research Circular Number 212, Transportation Research Board, 1980), determines the ratio of critical opposing traffic volumes to theoretical intersection capacity, yielding the volume-to-capacity (v/c) ratio. Intersection LOS, determined according to the value of the v/c ratio, range from LOS A (free flowing condition) to LOS F (severely congested conditions). Table C-2 (page A.47) provides more detailed descriptions of the six LOS, A through F, for signalized intersections using the *Critical Lane Analysis* methodology.



TABLE C-1  
SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS BASED ON DELAY

LEVEL OF SERVICE	TYPICAL DELAY (SEC/VEH)	TYPICAL TRAFFIC CONDITION
A	$\leq 5.0$	<b>Insignificant Delays:</b> No approach phase is fully utilized and no vehicle waits longer than one red indication.
B	5.1 - 15.0	<b>Minimal Delays:</b> an occasional approach phase is fully utilized. Drivers begin to feel restricted.
C	15.1 - 25.0	<b>Acceptable Delays:</b> Major approach phase may become fully utilized. Most drivers feel somewhat restricted.
D	25.1 - 40.0	<b>Tolerable Delays:</b> Drivers may wait through more than one red indication. Queues may develop but dissipate rapidly, without excessive delays.
E	40.1 - 60.0	<b>Significant Delays:</b> Conditions are generally the limit of acceptable delays. Vehicles may wait through several signal cycles and long queues of vehicles from upstream.
F	$> 60.0$	<b>Excessive Delays:</b> Represents unacceptable conditions with extremely long delays. Queues may block upstream intersections.

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Sources: *Highway Capacity Manual*, Highway Research Board, Special Report No. 209, Washington, D.C., 1985; *Interim Materials on Highway Capacity*, Circular 212, Transportation Research Board, 1980; Korve Engineering.

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TABLE C-2  
ARTERIAL LEVEL OF SERVICE DEFINITIONS BASED ON TRAVEL SPEED

ARTERIAL CLASS	I	II	III
RANGE OF FREE FLOW SPEEDS (mph)	45 to 35	35 to 30	35 to 25
TYPICAL FREE FLOW SPEED (mph)	40	35	27
LEVEL OF SERVICE	AVERAGE TRAVEL SPEED (mph)		
A	$\geq 35$	$\geq 30$	$\geq 25$
B	$\geq 28$	$\geq 24$	$\geq 19$
C	$\geq 22$	$\geq 18$	$\geq 13$
D	$\geq 17$	$\geq 14$	$\geq 9$
E	$\geq 13$	$\geq 10$	$\geq 7$
F	$< 13$	$< 10$	$< 7$

Level of Service A:	Primarily free-flow operations at average travel speeds, usually about 90 percent of the free flow speed for the arterial class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.
Level of Service B:	Reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free flow speed for the arterial class. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension.
Level of Service C:	Stable operations. However, ability to maneuver and change lanes in mid-block locations may be more restricted than in LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50 percent of the average free flow speed for the arterial class. Motorists will experience an appreciable tension while driving.
Level of Service D:	Borders on a range on which small increases in flow may cause substantial increases in approach delay and, hence, decreases in arterial speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of free flow speed.
Level of Service E:	Significant approach delays and average travel speeds of one-third the free flow speed or lower. Such operations are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.
Level of Service F:	Extremely low speeds below one-third to one-quarter of the free flow speed. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse progression is frequently a contributor to this condition.

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, 1980.



Although the two methodologies for calculating the LOS differ, there is usually a good correlation between the LOS calculated using either method of analysis. It is only when high levels of congestion occur that differences between the two methodologies may be more apparent. As an example, using the *1985 Highway Capacity Manual* methodology, an intersection may be operating at a LOS F, with poor traffic progression, many signal cycle failures and vehicle delays above 60 seconds per vehicle; however, the v/c ratio could be below one, which would mean a LOS E using the *Critical Lane Analysis* methodology. Conversely, using the *1985 Highway Capacity Manual* methodology, an intersection may be operating at LOS D, with an efficient signal progression handling large traffic volumes; however, the v/c ratio could be above 0.9, which would mean a LOS E using the *Critical Lane Analysis* methodology.

---

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

TO: Planning Department,  
Major Environmental Analysis

Please send me a copy of the Final EIR.

Signed: \_\_\_\_\_

Print Your Name and Address Below

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